PREVIEW CLOSE

Quiz: Proportions

Question 1a of 8 (3 solving a proportion for 'x' 91339)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 24
Question: Solve the proportion below.

$$\frac{4}{9} = \frac{x}{54}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 24.

Question 1b of 8 (3 solving a proportion for 'x' 289213)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 35
Question: Solve the proportion below.

$$\frac{x}{45} = \frac{7}{9}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback

	The correct answer is: 35.

Question 1c of 8 (3 solving a proportion for 'x' 289214)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 12
Question: Solve the proportion below.

$$\frac{x}{27}=\frac{4}{9}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 12.

Question 2a of 8 (3 solving a proportion for 'x' 91340)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 42
Question: Solve the proportion below.

$$\frac{7}{x}=\frac{19}{1^{\prime}4}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 42.

Question 2b of 8 (3 solving a proportion for 'x' 289215)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 24
Question: Solve the proportion below.

$$\frac{7}{x} = \frac{28}{96}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 24.

Question 2c of 8 (3 solving a proportion for 'x' 289216)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 12
Question: Solve the proportion below.

$$\frac{5}{x} = \frac{30}{72}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 12.

Question 3a of 8 (3 solving a proportion for 'x' 91341)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 2
Question: Solve the proportion below.

$$\frac{x}{12} = \frac{12}{72}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 3b of 8 (3 solving a proportion for 'x' 289217)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 1
Question: Solve the proportion below.

$$\frac{9}{81} = \frac{x}{9}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1.

Question 3c of 8 (3 solving a proportion for 'x' 289218)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 9

Question: Solve the proportion below.

$$\frac{x}{6}=\frac{6}{4}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 9.

Question 4a of 8 (3 solving a proportion for 'x' 91342)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 15

Question: Solve the proportion below.

$$\frac{9.5}{19}=\frac{x}{30}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 15.

Question 4b of 8 (3 solving a proportion for 'x' 289219)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 21

Question: Solve the proportion below.

$$\frac{x}{10.5} = \frac{7}{3.5}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 21.

Question 4c of 8 (3 solving a proportion for 'x' 289220)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 9
Question: Solve the proportion below.

$$\frac{x}{18} = \frac{8.5}{17}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 9.

Question 5a of 8 (3 solving a proportion for 'x' 91343)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 9
Question: Solve the proportion below.

$$\frac{x}{12.6} = \frac{45}{63}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 9.

Question 5b of 8 (3 solving a proportion for 'x' 289221)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 60
Question: Solve the proportion below.

$$\frac{11}{12.1} = \frac{x}{66}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 60.

Question 5c of 8 (3 solving a proportion for 'x' 289222)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 10
Question: Solve the proportion below.

$$\frac{x}{79} = \frac{2}{5F}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 10.

Question 6a of 8 (3 solving a proportion for 'x' 91344)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 120
Question: Solve the proportion below.

$$\frac{90}{x} = \frac{3}{4}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 120.

Question 6b of 8 (3 solving a proportion for 'x' 289223)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 42
Question: Solve the proportion below.

$$\frac{84}{x} = \frac{9}{7}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 42.

Question 6c of 8 (3 solving a proportion for 'x' 289224)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 66
Question: Solve the proportion below.

$$\frac{66}{x} = \frac{6}{6}$$

x = _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 66.

Question 7a of 8 (3 solving a proportion for 'x' - word problem 91345)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 13.5
Question: Solve the problem using proportions, and enter your answer in the box below. Do *not* include units in your answer.

At a certain time of day, a tree casts a 9-foot shadow at the same time that a person 6 feet tall casts a 4-foot shadow. What is the height of the tree?

Attempt	Incorrect Feedback

1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 13.5.

Question 7b of 8 (3 solving a proportion for 'x' - word problem 289225)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 8

Question: Solve the problem using proportions, and enter your answer in the box below. Do *not* include units in your answer.

A certain brand of candy is sold by weight, with a 3-ounce bag costing 75 cents. If a bag of this candy costs $2.00, how heavy is it?

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 8.

Question 7c of 8 (3 solving a proportion for 'x' - word problem 289226)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 14

Question: Solve the problem using proportions, and enter your answer in the box below. Do *not* include units in your answer.

At a certain time of day, a person 6 feet tall casts a 4-foot shadow. How long is the shadow cast by a 21-foot tree at the same time?

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Correct!

	Global Incorrect Feedback
	The correct answer is: 14.

Question 8a of 8 (3 solving a proportion for 'x' - word problem 91346)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 24

Question: Solve the problem using proportions, and enter your answer in the box below. Do *not* include units in your answer.

Deon worked 16 hours last week at the grocery store and earned $92.00. If he continues to earn the same hourly pay, how many additional hours must he work to earn another $138.00?

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 24.

Question 8b of 8 (3 solving a proportion for 'x' - word problem 289227)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 9

Question: Solve the problem using proportions, and enter your answer in the box below. Do *not* include units in your answer.

Lester worked 12 hours last week at the grocery store and earned $92.00. If he continues to earn the same hourly pay, how many additional hours must he work to earn another $69.00?

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 9.

Question 8c of 8 (3 solving a proportion for 'x' - word problem 289228)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 27

Question: Solve the problem using proportions, and enter your answer in the box below. Do *not* include units in your answer.

Thom worked 18 hours last week at the sporting goods store and earned $92.00. If he continues to earn the same hourly pay, how many additional hours must he work to earn another $138.00?

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 27.

PREVIEW CLOSE

Quiz: Rational Expressions

Question 1a of 8 (3 substituting a value for 'x' in a rational expression 91681)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: -2
Question: What is the value of the rational expression below when *x* is equal to 5?

$$\frac{15-x}{x-10}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -2.

Question 1b of 8 (3 substituting a value for 'x' in a rational expression 289237)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 2
Question: What is the value of the rational expression below when *x* is equal to 4?

$$\frac{x\ \ 12}{x-8}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 1c of 8 (3 substituting a value for 'x' in a rational expression 289238)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: -3
Question: What is the value of the rational expression below when *x* is equal to 3?

$$\frac{12x}{x-6}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -3.

Question 2a of 8 (3 substituting a value for 'x' in a rational expression 91682)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 3
Question: What is the value of the rational expression below when *x* is equal to 4?

$$\frac{x+20}{x+4}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 3.

Question 2b of 8 (3 substituting a value for 'x' in a rational expression 289239)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2

Correct Answer: 2

Question: What is the value of the rational expression below when *x* is equal to 4?

$$\frac{12+x}{4+x}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 2c of 8 (3 substituting a value for 'x' in a rational expression 289240)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 4

Question: What is the value of the rational expression below when *x* is equal to 3?

$$\frac{17+x}{x+2}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 4.

Question 3a of 8 (3 finding the zeroes of a rational function 91683)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 8

Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{x-8}{x+8}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 8.

Question 3b of 8 (3 finding the zeroes of a rational function 289241)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 2
Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{2-x}{2+x}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 3c of 8 (3 finding the zeroes of a rational function 289242)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 4
Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{x-4}{x-5}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Correct!

	Global Incorrect Feedback
	The correct answer is: 4.

Question 4a of 8 (3 finding the zeroes of a rational function 91684)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: -10
Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{20+2x}{5-x}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -10.

Question 4b of 8 (3 finding the zeroes of a rational function 289243)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: -5
Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{3x+15}{6-x}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -5.

Question 4c of 8 (3 finding the zeroes of a rational function 289244)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: -6
Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{12+2x}{6-x}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -6.

Question 5a of 8 (3 finding when a rational function is undefined 91685)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: -1
Question: For what value of *x* is the rational expression below undefined?

$$\frac{1-x}{x+1}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -1.

Question 5b of 8 (3 finding when a rational function is undefined 289245)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2

Correct Answer: -3

Question: For what value of *x* is the rational expression below undefined?

$$\frac{x-3}{3+x}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -3.

Question 5c of 8 (3 finding when a rational function is undefined 289247)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -4

Question: For what value of *x* is the rational expression below undefined?

$$\frac{x-4}{4+x}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -4.

Question 6a of 8 (3 finding when a rational function is undefined 91686)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 6

Question: For what value of *x* is the rational expression below undefined?

$$\frac{3x-5}{x-6}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 6.

Question 6b of 8 (3 finding when a rational function is undefined 289248)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 9
Question: For what value of *x* is the rational expression below undefined?

$$\frac{3x\ 12}{9-x}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 9.

Question 6c of 8 (3 finding when a rational function is undefined 289249)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 7
Question: For what value of *x* is the rational expression below undefined?

$$\frac{2x+4}{x-7}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Correct!

	Global Incorrect Feedback
	The correct answer is: 7.

Question 7a of 8 (1 finding when a rational function is undefined 135068)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: A rational expression is undefined whenever its denominator is zero.

	Choice
***A.**	True
B.	False

Attempt	Incorrect Feedback
1st	Correct!

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: True.

Question 7b of 8 (1 finding when a rational function is undefined 289251)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: A rational expression is undefined whenever its numerator is zero.

	Choice	Feedback
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 7c of 8 (1 finding when a rational function is undefined 289252)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: A rational expression is undefined whenever its denominator is zero.

	Choice	Feedback
***A.**	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 8a of 8 (3 finding the zeroes of a rational function 135070)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 4

Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{x-4}{(x+5)(x-1)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 4.

Question 8b of 8 (3 finding the zeroes of a rational function 289253)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 9

Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{x-9}{(x-4)(x+4)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Correct!

	Global Incorrect Feedback
	The correct answer is: 9.

Question 8c of 8 (3 finding the zeroes of a rational function 289254)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 1

Question: For what value of *x* is the rational expression below equal to zero?

$$\frac{x-1}{(x-3)(x+1)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1.

PREVIEW CLOSE

Quiz: Simplifying Rational Expressions

Question 1a of 8 (3 reducing a fraction 91550)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: 3/5
Question: Reduce the fraction below. Use the slash (/) as a fraction bar.

$$\frac{15}{25}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 3/5.

Question 1b of 8 (3 reducing a fraction 289407)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: 4/5
Question: Reduce the fraction below. Use the slash (/) as a fraction bar.

$$\frac{24}{30}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 4/5.

Question 1c of 8 (3 reducing a fraction 289409)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: 2/7
Question: Reduce the fraction below. Use the slash (/) as a fraction bar.

$$\frac{14}{49}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2/7.

Question 2a of 8 (3 reducing a fraction 91551)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: 1/4
Question: Reduce the fraction below. Use the slash (/) as a fraction bar.

$$\frac{6}{24}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1/4.

Question 2b of 8 (3 reducing a fraction 289410)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: 1/6
Question: Reduce the fraction below. Use the slash (/) as a fraction bar.

$$\frac{8}{48}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1/6.

Question 2c of 8 (3 reducing a fraction 289411)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: 1/3
Question: Reduce the fraction below. Use the slash (/) as a fraction bar.

$$\frac{5}{15}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1/3.

Question 3a of 8 (2 reducing a rational expression 91552)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq$ -2 or -6?

$$\frac{3(x+2)}{(x+6)(x+2)}$$

	Choice	Feedback
A.	$\frac{1}{x+2}$	
B.	$\frac{3}{x+2}$	
***C.**	$\frac{3}{x+6}$	Correct!
D.	$\frac{1}{x+6}$	

Global Incorrect Feedback
The correct answer is: $\frac{3}{x+6}$.

Question 3b of 8 (2 reducing a rational expression 289412)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq$ 2 or -4?

$$\frac{5(x-2)}{(x-2)(x+4)}$$

	Choice	Feedback
***A.**	$\frac{5}{x+4}$	Correct!
B.	$\frac{1}{x-2}$	
C.	$\frac{5}{x-2}$	
D.	$\frac{1}{x-4}$	

Global Incorrect Feedback

The correct answer is: $\frac{5}{x-4}$.

Question 3c of 8 (2 reducing a rational expression 289432)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq 1$ or -1?

$\frac{5(x-1)}{(x+1)(x-1)}$

	Choice	Feedback
A.	$\frac{5}{x-1}$	
B.	$\frac{5}{(x-1)(x+1)}$	
C.	$\frac{5(x-1)}{x+1}$	
***D.**	$\frac{5}{x+1}$	

Global Incorrect Feedback
The correct answer is: $\frac{5}{x+1}$.

Question 4a of 8 (2 reducing a rational expression 91553)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq 3$ or -10?

$\frac{(x+5)(x-3)}{(x-3)(x+10)}$

	Choice	Feedback
***A.**	$\frac{x+5}{x+10}$	Correct!

B.	$\frac{x+5}{x-3}$	
C.	$\frac{x-3}{x+10}$	
D.	$\frac{x-3}{x+5}$	

Global Incorrect Feedback
The correct answer is: $\frac{x+5}{x+10}$.

Question 4b of 8 (2 reducing a rational expression 289414)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq 5$ or -1?

$\frac{(x-7)(x+1)}{(x+1)(x-5)}$

	Choice	**Feedback**
A.	$\frac{x-7}{x+1}$	
B.	$\frac{x+1}{x-5}$	
C.	$\frac{x+1}{x\ \ 7}$	
***D.**	$\frac{x\ \ 7}{x-5}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{x-7}{x-5}$.

Question 4c of 8 (2 reducing a rational expression 289415)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq 4$ or -9?

$$\frac{(x-4)(x+11)}{(x+9)(x-4)}$$

	Choice	Feedback
***A.**	$\frac{x+11}{x+9}$	Correct!
B.	$\frac{x+11}{x-4}$	
C.	$\frac{x-4}{x+9}$	
D.	$\frac{x-4}{x+11}$	

Global Incorrect Feedback
The correct answer is: $\frac{x+11}{x+9}$.

Question 5a of 8 (3 reducing a rational expression 91554)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq 5$?

$$\frac{x^2-25}{x-5}$$

	Choice	Feedback
A.	$\frac{x+5}{x-5}$	
B.	$x - 5$	
C.	$\frac{1}{x+5}$	
***D.**	$x + 5$	Correct!

Global Incorrect Feedback
The correct answer is: $x + 5$.

Question 5b of 8 (3 reducing a rational expression 289416)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq -3$?

$$\frac{x^2-9}{x+3}$$

	Choice	Feedback
A.	$\frac{x-3}{x+3}$	
*B.	$x-3$	Correct!
C.	$x-3$	
D.	$\frac{1}{x-3}$	

Global Incorrect Feedback
The correct answer is: $x-3$.

Question 5c of 8 (3 reducing a rational expression 289417)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq -6$?

$$\frac{x^2-36}{x+6}$$

	Choice	Feedback
A.	$\frac{1}{x-6}$	
B.	$x+6$	
*C.	$x-6$	Correct!

D.	x^2-6	

Global Incorrect Feedback
The correct answer is: $x-6$.

Question 6a of 8 (3 reducing a rational expression 91555)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq$ -2 or 3?

$$\frac{x^2+5x+6}{x^2-x-6}$$

	Choice	Feedback
A.	$\frac{x+2}{x-3}$	
B.	$\frac{x+3}{x-2}$	
C.	$\frac{x+2}{x-2}$	
***D.**	$\frac{x+3}{x-3}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{x+3}{x-3}$.

Question 6b of 8 (3 reducing a rational expression 289418)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq$ -4 or 3?

$$\frac{x^2-4x+3}{x^2+x-12}$$

	Choice	Feedback
A.	$\frac{x-1}{x-3}$	
*B.	$\frac{x-1}{x+4}$	Correct!
C.	$\frac{x-1}{x+4}$	
D.	$\frac{x-3}{x+1}$	

Global Incorrect Feedback
The correct answer is: $\frac{x-1}{x-4}$.

Question 6c of 8 (3 reducing a rational expression 289419)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

Which of the following is equal to the rational expression when $x \neq 5$ or -3?

$\frac{x^2+x-6}{x^2-2x-15}$

	Choice	Feedback
*A.	$\frac{x-2}{x-5}$	Correct!
B.	$\frac{x-2}{x+3}$	
C.	$\frac{x+3}{x-5}$	
D.	$\frac{x-6}{x-5}$	

Global Incorrect Feedback
The correct answer is: $\frac{x-2}{x-5}$.

Question 7a of 8 (1 reducing a rational expression 135071)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: factor

Question: Reducing rational expressions is a lot like reducing numerical fractions; you first need to _____ the numerator and denominator.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: factor.

Question 7b of 8 (1 reducing a rational expression 289420)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: numerator, numerater

Question: The first step in reducing a rational expression is to factor both its _____ and denominator.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: numerator.

Question 7c of 8 (1 reducing a rational expression 289421)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: factor

Question: The first step in reducing a rational expression is to _____ both the numerator and denominator.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: factor.

Question 8a of 8 (3 reducing a rational expression 135072)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -1

Question: If the common factor (x + 1) is divided out of the original expression, the reduced expression will be equal to the original expression only when x does not equal _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -1.

Question 8b of 8 (3 reducing a rational expression 289422)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -6

Question: If the common factor (x + 6) is divided out of the original expression, the reduced expression will be equal to the original expression only when x does not equal _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -6.

Question 8c of 8 (3 reducing a rational expression 289423)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 2

Question: If the common factor (x - 2) is divided out of the original expression, the reduced expression will be equal to the original expression only when x does not equal _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

PREVIEW CLOSE

Quiz: Dividing Rational Expressions

Question 1a of 9 (3 dividing fractions 91370)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 9/10

Question: Calculate the quotient of the fractions below. Enter your answer as a fraction, using the slash (/) as the fraction bar.

$$\frac{3}{5} \div \frac{2}{3}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 9/10.

Question 1b of 9 (3 dividing fractions 289601)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 20/49

Question: Calculate the quotient of the fractions below. Enter your answer as a fraction, using the slash (/) as the fraction bar.

$$\frac{4}{7} \div \frac{7}{6}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback

	The correct answer is: 20/49.

Question 1c of 9 (3 dividing fractions 289612)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 33/25

Question: Calculate the quotient of the fractions below. Enter your answer as a fraction, using the slash (/) as the fraction bar.

$$\frac{3}{5} \div \frac{5}{11}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 33/25.

Question 2a of 9 (3 dividing fractions 91371)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 8/15

Question: Calculate the quotient of the fractions below. Enter your answer as a fraction, using the slash (/) as the fraction bar.

$$\frac{1}{3} \div \frac{5}{8}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 8/15.

Question 2b of 9 (3 dividing fractions 289613)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 8/15

Question: Calculate the quotient of the fractions below. Enter your answer as a fraction, using the slash (/) as the fraction bar.

$$\frac{2}{3} \div \frac{5}{4}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 8/15.

Question 2c of 9 (3 dividing fractions 289614)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 21/2

Question: Calculate the quotient of the fractions below. Enter your answer as a fraction, using the slash (/) as the fraction bar.

$$\frac{7}{2} \div \frac{1}{3}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 21/2.

Question 3a of 9 (3 dividing rational expressions 91372)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{x+2}{x-1} \div \frac{3}{2x}$$

	Choice	Feedback
A.	$\frac{3}{x-1}$	
***B.**	$\frac{2x^2+4x}{3x-3}$	Correct!
C.	$\frac{4x}{-3}$	
D.	$\frac{3x+6}{2x^2-2x}$	

Global Incorrect Feedback
The correct answer is: $\frac{2x^2+4x}{3x-3}$.

Question 3b of 9 (3 dividing rational expressions 289615)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{x-2}{x+3} \div \frac{2}{x}$$

	Choice	Feedback
A.	$\frac{2x-2}{x^2+3x}$	
B.	$\frac{2x-4}{x^2+3x}$	
C.	$\frac{x}{2x+3}$	

*D.	$\frac{x^2 - 2x}{2x+6}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{x^2 - 2x}{2x+6}$.

Question 3c of 9 (3 dividing rational expressions 289616)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{x+2}{x+8} \div \frac{2x}{3}$$

	Choice	Feedback
A.	$\frac{x^2+2x}{3x+1}$	
B.	$\frac{2x^2+4x}{3x+24}$	
*C.	$\frac{3x+6}{2x^2+16x}$	Correct!
D.	$\frac{2x^2+5}{2x^2-1}$	

Global Incorrect Feedback
The correct answer is: $\frac{3x+6}{2x^2+16x}$.

Question 4a of 9 (3 dividing rational expressions 91373)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{5x}{2x+3} \div \frac{x+1}{3x}$$

	Choice	Feedback

A.	$\frac{1}{3}$	
B.	$\frac{15}{5x+5}$	
C.	$\frac{5x^2+5x}{6x^2+9x}$	
***D.**	$\frac{15x^2}{2x^2+5x+3}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{15x^2}{2x^2+5x+3}$.

Question 4b of 9 (3 dividing rational expressions 289618)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{x}{3x-1} \div \frac{x-2}{2x}$$

	Choice	**Feedback**
A.	$\frac{2x^2}{6x^2-2x}$	
***B.**	$\frac{2x^2}{3x^2-7x+2}$	Correct!
C.	$\frac{3x}{4x-3}$	
D.	$\frac{2x\ \ 2}{5x-1}$	

Global Incorrect Feedback
The correct answer is: $\frac{2x^2}{3x^2-7x+2}$.

Question 4c of 9 (3 dividing rational expressions 289619)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{2x}{4x+3} \div \frac{x-1}{2x}$$

	Choice	Feedback
***A.**	$\frac{4x^2}{4x^2-x-3}$	Correct!
B.	$\frac{x^2}{4x^2-x-3}$	
C.	$\frac{x-1}{4x+3}$	
D.	$\frac{4x}{3x+2}$	

Global Incorrect Feedback
The correct answer is: $\frac{4x^2}{4x^2-x-3}$.

Question 5a of 9 (3 dividing rational expressions 91374)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{2x-3}{5x^2} \div \frac{x-5}{3x-1}$$

	Choice	Feedback
***A.**	$\frac{6x^2-11x+3}{5x^3-25x^2}$	Correct!
B.	$\frac{10x^2-11x-6}{9x^3-3x^2}$	
C.	$\frac{x-4}{5x^2}$	
D.	$\frac{-2x+3}{5x^2+2x}$	

Global Incorrect Feedback
The correct answer is: $\frac{6x^2-11x+3}{5x^3-25x^2}$.

Question 5b of 9 (3 dividing rational expressions 289621)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{4x}{2x-1} \div \frac{3x+2}{x+5}$$

	Choice	Feedback
A.	$\frac{12x^2+8x}{2x^2+9x-5}$	
B.	$\frac{6x+5}{5x+1}$	
C.	$\frac{5x+5}{2x^2-5}$	
***D.**	$\frac{4x^2+20x}{6x^2+x-2}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{4x^2+20x}{6x^2+x-2}$.

Question 5c of 9 (3 dividing rational expressions 289622)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{2x+5}{3x} \div \frac{2x-1}{2x+1}$$

	Choice	Feedback
A.	$\frac{-2x-5}{3x}$	

*B.	$\frac{4x^2+12x+5}{6x^2-3x}$	Correct!
C.	$\frac{4x^2+8x-5}{6x^2+3x}$	
D.	$\frac{4x+4}{5x+1}$	

Global Incorrect Feedback
The correct answer is: $\frac{4x^2+12x+5}{6x^2-3x}$.

Question 6a of 9 (3 dividing rational expressions 91375)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{2x^3}{x+5} \div \frac{x-5}{3x-1}$$

	Choice	Feedback
A.	$\frac{2x^4}{3x^2-x}$	
B.	$\frac{2x^3+3x-1}{x^2+25}$	
*C.	$\frac{6x^4-2x^3}{x^2-25}$	Correct!
D.	$\frac{2x^4-10x^3}{3x^2+14x-5}$	

Global Incorrect Feedback
The correct answer is: $\frac{6x^4-2x^3}{x^2-25}$.

Question 6b of 9 (3 dividing rational expressions 289623)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{x+2}{2x+7} \div \frac{x^4}{x-2}$$

	Choice	Feedback
*A.	$\frac{x^2-4}{2x^5+7x^4}$	Correct!
B.	$\frac{x^4+x+2}{3x+5}$	
C.	$\frac{x^4+2x^4}{2x^2+3x-14}$	
D.	$\frac{-x^4}{2x+7}$	

Global Incorrect Feedback
The correct answer is: $\frac{x^2-4}{2x^5-7x^4}$.

Question 6c of 9 (3 dividing rational expressions 289624)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{x-4}{2x^2} \div \frac{2x+3}{x+4}$$

	Choice	Feedback
A.	$\frac{-2x-3}{2x^2}$	
*B.	$\frac{x^2-16}{4x^3-8x^2}$	Correct!
C.	$\frac{2x^2-5x-12}{2x^3+8x^2}$	
D.	$\frac{2x}{7x^2+7x+3}$	

Global Incorrect Feedback
The correct answer is: $\frac{x^2-16}{4x^3-8x^2}$.

Question 7a of 9 (3 dividing rational expressions 91376)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{3x}{2x+5} \div \frac{2x}{x+5}$$

	Choice	Feedback
*A.	$\frac{3x+15}{4x+10}$	Correct!
B.	$\frac{4x^2+10x}{3x^2+15x}$	
C.	$\frac{6x^2}{2x^2+15x+25}$	
D.	$\frac{3}{4}$	

Global Incorrect Feedback
The correct answer is: $\frac{3x+15}{4x+10}$.

Question 7b of 9 (3 dividing rational expressions 289625)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{2x}{x-1} \div \frac{5x}{2x+4}$$

	Choice	Feedback
A.	$\frac{10x^2}{2x^2+2x-4}$	
B.	$\frac{7x}{3x-3}$	
C.	$\frac{4x+4}{6x-1}$	

*D.	$\frac{4x+8}{5x-5}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{4x+8}{5x-5}$.

Question 7c of 9 (3 dividing rational expressions 289626)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below?

$$\frac{4x+1}{6x} \div \frac{x}{3x-1}$$

	Choice	Feedback
A.	$\frac{12x^2-1}{6x^2}$	
B.	$\frac{4x+1}{18x-6}$	
*C.	$\frac{12x^2-x-1}{6x^2}$	Correct!
D.	$\frac{5x+1}{9x-1}$	

Global Incorrect Feedback
The correct answer is: $\frac{12x^2-x-1}{6x^2}$.

Question 8a of 9 (3 dividing rational expressions 91377)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below? Make sure your answer is in reduced form.

$$\frac{7x^2}{2x+6} \div \frac{3x-5}{x+3}$$

	Choice	Feedback

*A.	$\frac{7x^2}{6x-10}$	Correct!
B.	$\frac{6x-10}{7x^2}$	
C.	$\frac{21x^3-35x^2}{2x^2+12x+18}$	
D.	$\frac{6x^2+8x-30}{7x^3+21x^2}$	
E.	$-\frac{7x^3+21x^2}{6x^2+8x-30}$	

Global Incorrect Feedback
The correct answer is: $\frac{7x^2}{6x-10}$.

Question 8b of 9 (3 dividing rational expressions 289627)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below? Make sure your answer is in reduced form.

$$\frac{3x-6}{x^2} \div \frac{x-2}{2x-1}$$

	Choice	Feedback
*A.	$\frac{6x^2-15x+6}{x^4-2x^2}$	
B.	$\frac{4x-8}{x^3+2x-1}$	
C.	$\frac{6x-3}{x^2}$	
D.	$\frac{5x-7}{x^3+x-2}$	
E.	$\frac{3x^2-12x+12}{2x^4-x^2}$	

Global Incorrect Feedback
The correct answer is: $\frac{6x^2-15x+6}{x^4-2x^2}$.

Question 8c of 9 (3 dividing rational expressions 289628)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the quotient of the rational expressions shown below? Make sure your answer is in reduced form.

$$\frac{2x-1}{x+1} \div \frac{3x^2}{x^2+x}$$

	Choice	Feedback
A.	$\frac{6x^4-3x^2}{x^3+2x^2+x}$	
B.	$\frac{3x^2+2x-1}{x^2+2x+1}$	
C.	$\frac{x^2+3x-1}{3x^2+x+1}$	
***D.**	$\frac{2x-1}{3x}$	Correct!
E.	$\frac{6x^4-3x}{x^2+2x+1}$	

Global Incorrect Feedback
The correct answer is: $\frac{2x-1}{3x}$.

Question 9a of 9 (1 dividing rational expressions 329766)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: If $\frac{a}{b}$ and $\frac{c}{d}$ are rational expressions, then:

$$\frac{a}{b} \div \frac{c}{d} = \frac{a \bullet d}{b \bullet c}$$

	Choice	Feedback
***A.**	True	
B.	False	

Global Incorrect Feedback

The correct answer is: True.

Question 9b of 9 (1 dividing rational expressions 329767)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question:

If $\frac{a}{b}$ and $\frac{c}{d}$ are rational expressions, then:

$$\frac{a}{b} \div \frac{c}{d} = \frac{a \bullet c}{b \bullet d}$$

	Choice	Feedback
A.	True	
***B.**	False	

Global Incorrect Feedback
The correct answer is: False.

Question 9c of 9 (1 dividing rational expressions 329768)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question:

If $\frac{a}{b}$ and $\frac{c}{d}$ are rational expressions, then:

$$\frac{a}{b} \div \frac{c}{d} = \frac{a \bullet d}{b \bullet c}$$

	Choice	Feedback
***A.**	True	
B.	False	

Global Incorrect Feedback
The correct answer is: True.

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Quiz: Multiplying Rational Expressions

Question 1a of 9 (1 multiplying fractions 91362)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 2/21

Question: Calculate the product of the fractions below. Enter your answer as a fraction in lowest terms, using the slash (/) as the fraction bar.

$$\frac{1}{3} \cdot \frac{2}{7}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2/21.

Question 1b of 9 (1 multiplying fractions 289517)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 21/20

Question: Calculate the product of the fractions below. Enter your answer as a fraction in lowest terms, using the slash (/) as the fraction bar.

$$\frac{3}{4} \cdot \frac{7}{5}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback

	The correct answer is: 21/20.

Question 1c of 9 (1 multiplying fractions 289518)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 15/8

Question: Calculate the product of the fractions below. Enter your answer as a fraction in lowest terms, using the slash (/) as the fraction bar.

$$\frac{5}{2} \cdot \frac{3}{4}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 15/8.

Question 2a of 9 (1 multiplying fractions 91363)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 4/55

Question: Calculate the product of the fractions below. Enter your answer as a fraction in lowest terms, using the slash (/) as the fraction bar.

$$\frac{1}{-1} \cdot \frac{4}{5}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 4/55.

Question 2b of 9 (1 multiplying fractions 289520)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 15/34

Question: Calculate the product of the fractions below. Enter your answer as a fraction in lowest terms, using the slash (/) as the fraction bar.

$$\frac{5}{2} \cdot \frac{3}{17}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 15/34.

Question 2c of 9 (1 multiplying fractions 289521)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 7/33

Question: Calculate the product of the fractions below. Enter your answer as a fraction in lowest terms, using the slash (/) as the fraction bar.

$$\frac{1}{11} \cdot \frac{7}{3}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 7/33.

Question 3a of 9 (1 multiplying rational expressions 91364)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{3}{x+7} \bullet \frac{4}{x}$$

	Choice	Feedback
A.	$\frac{7}{x^2+x}$	
B.	$\frac{12}{2x+7}$	
***C.**	$\frac{12}{x^2+7x}$	Correct!
D.	$\frac{7}{x^2+7x}$	

Global Incorrect Feedback
The correct answer is: $\frac{12}{x^2+7x}$.

Question 3b of 9 (1 multiplying rational expressions 289522)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{2}{x+1} \bullet \frac{5}{3x}$$

	Choice	Feedback
***A.**	$\frac{10}{3x^2+3x}$	Correct!
B.	$\frac{5}{x^2+3}$	
C.	$\frac{10}{3x+3}$	
D.	$\frac{5(x+1)}{6x}$	

Global Incorrect Feedback
The correct answer is: $\frac{10}{3x^2+3x}$.

Question 3c of 9 (1 multiplying rational expressions 289523)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{2}{x} \cdot \frac{3}{2x-5}$$

	Choice	Feedback
A.	$\frac{3}{x^2-5x}$	
B.	$\frac{5x}{x-5}$	
C.	$\frac{6}{2x-5}$	
***D.**	$\frac{6}{2x^2-5x}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{6}{2x^2-5x}$.

Question 4a of 9 (1 multiplying rational expressions 91365)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{5}{2x+1} \cdot \frac{6}{x}$$

	Choice	Feedback
***A.**	$\frac{30}{2x^2+x}$	Correct!

B.	$\frac{15}{x^2+x}$	
C.	$\frac{30}{3x+1}$	
D.	$\frac{11}{2x^2+x}$	

Global Incorrect Feedback
The correct answer is: $\frac{30}{2x^2+x}$.

Question 4b of 9 (1 multiplying rational expressions 289524)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$\frac{3}{x+2} \cdot \frac{7}{2x}$

	Choice	**Feedback**
A.	$\frac{21}{2x+4}$	
B.	$\frac{42}{2x^2+4x}$	
C.	$\frac{42}{2x+4}$	
***D.**	$\frac{21}{2x^2+4x}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{21}{2x^2+4x}$.

Question 4c of 9 (1 multiplying rational expressions 289525)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$\frac{2}{2x+3} \cdot \frac{9}{x}$

	Choice	Feedback
A.	$\frac{9}{x^2+3x}$	
B.	$\frac{9}{x+3}$	
*C.	$\frac{18}{2x^2+3x}$	Correct!
D.	$\frac{18}{x+3}$	

Global Incorrect Feedback
The correct answer is: $\frac{18}{2x^2+3x}$.

Question 5a of 9 (1 multiplying rational expressions 91366)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$\frac{x-3}{x+5} \cdot \frac{3x}{x-5}$

	Choice	Feedback
A.	$\frac{3x^2-9x}{x}$	
B.	$\frac{3x^2-3x}{x^2-25}$	
C.	$\frac{3x^2-3}{x^2-10}$	
*D.	$\frac{3x^2-9x}{x^2-25}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{3x^2-9x}{x^2-25}$.

Question 5b of 9 (1 multiplying rational expressions 289527)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{7x}{x+3} \cdot \frac{x+1}{x-3}$$

	Choice	Feedback
*A.	$\frac{7x^2+7x}{x^2-9}$	Correct!
B.	$\frac{7x^2+7x}{x^2-6}$	
C.	$\frac{7x^2+x}{x^2-6}$	
D.	$\frac{7x^2+x}{x^2-9}$	

Global Incorrect Feedback
The correct answer is: $\frac{7x^2+7x}{x^2-9}$.

Question 5c of 9 (1 multiplying rational expressions 289528)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{x+2}{x-4} \cdot \frac{3x}{x+4}$$

	Choice	Feedback
A.	$\frac{3x^2+2x}{x-6}$	
B.	$\frac{3x+6}{x^2-16}$	
*C.	$\frac{3x^2+6x}{x^2-16}$	Correct!
D.	$\frac{4x+2}{x^2}$	

Global Incorrect Feedback
The correct answer is: $\frac{3x^2+6x}{x^2-16}$.

Question 6a of 9 (1 multiplying rational expressions 91367)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$\frac{x+3}{x+7} \cdot \frac{x-3}{x-7}$

	Choice	Feedback
A.	$\frac{x^2-4}{x^2-9}$	
*B.	$\frac{x^2-9}{x^2-4}$	Correct!
C.	$\frac{x^2}{x^2-4}$	
D.	$\frac{9}{4}$	

Global Incorrect Feedback
The correct answer is: $\frac{x^2-9}{x^2-4}$.

Question 6b of 9 (1 multiplying rational expressions 289529)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$\frac{x-1}{x+5} \cdot \frac{x+1}{x-5}$

	Choice	Feedback
*A.	$\frac{x^2-1}{x^2-25}$	Correct!

B.	$\frac{x^2-1}{x^2-5}$	
C.	$\frac{x-1}{x-5}$	
D.	$\frac{x^2-1}{x^2+10}$	

Global Incorrect Feedback
The correct answer is: $\frac{x^2-1}{x^2-25}$.

Question 6c of 9 (1 multiplying rational expressions 289530)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$\frac{x+6}{x+3} \cdot \frac{x-6}{x-3}$

	Choice	**Feedback**
A.	$\frac{2x-12}{x-3}$	
B.	$\frac{x-12}{x-6}$	
C.	$\frac{x^2-12}{x^2-6}$	
***D.**	$\frac{x^2-36}{x^2-9}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{x^2-36}{x^2-9}$.

Question 7a of 9 (1 multiplying rational expressions 91368)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{x}{x+3} \cdot \frac{x}{x+2}$$

	Choice	Feedback
A.	$\frac{2x}{x^2+5x+6}$	
B.	$\frac{x^2}{x^2+5}$	
C.	$\frac{x^2}{x^2+6}$	
*D.	$\frac{x^2}{x^2+5x+6}$	Correct!

Global Incorrect Feedback
The correct answer is $\frac{x^2}{x^2+5x+6}$.

Question 7b of 9 (1 multiplying rational expressions 289531)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{x}{x-3} \cdot \frac{2x}{x+5}$$

	Choice	Feedback
*A.	$\frac{2x^2}{x^2+2x-15}$	Correct!
B.	$\frac{2x^2}{x^2+2}$	
C.	$\frac{x^2}{x^2-2x+15}$	
D.	$\frac{3x}{2x+2}$	

Global Incorrect Feedback
The correct answer is $\frac{2x^2}{x^2+2x-15}$.

Question 7c of 9 (1 multiplying rational expressions 289532)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{3x}{x+2} \cdot \frac{x}{x-1}$$

	Choice	Feedback
A.	$\frac{x^2}{x^2-2}$	
B.	$\frac{4x}{2x+1}$	
*C.	$\frac{3x^2}{x^2+x-2}$	Correct!
D.	$\frac{4x^2}{x^2+1}$	

Global Incorrect Feedback
The correct answer is $\frac{3x^2}{x^2+x-2}$.

Question 8a of 9 (1 multiplying rational expressions 91369)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{x}{x-5} \cdot \frac{2x}{x+4}$$

	Choice	Feedback
A.	$\frac{3x}{x-1}$	
B.	$\frac{2x^2}{x^2-9x-20}$	
C.	$\frac{2x^2}{x^2-1}$	
*D.	$\frac{2x^2}{x^2-x-20}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{2x^2}{x^2-x-20}$.

Question 8b of 9 (1 multiplying rational expressions 289533)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{3x}{x+1} \cdot \frac{x}{x-7}$$

	Choice	Feedback
A.	$\frac{4x}{2x-6}$	
*B.	$\frac{3x^2}{x^2-6x-7}$	Correct!
C.	$\frac{3x^2}{x^2-6}$	
D.	$\frac{3x^2}{x^2+x-6}$	

Global Incorrect Feedback
The correct answer is: $\frac{3x^2}{x^2-6x-7}$.

Question 8c of 9 (1 multiplying rational expressions 289538)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which of the following is the product of the rational expressions shown below?

$$\frac{7x}{x-4} \cdot \frac{x}{x+7}$$

	Choice	Feedback
A.	$\frac{x^2}{x^2+3x-28}$	

B.	$\frac{x^2}{x^2-3x-4}$	
C.	$\frac{8x}{2x+3}$	
***D.**	$\frac{7x^2}{x^2+3x-28}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{7x^2}{x^2+3x-28}$.

Question 9a of 9 (1 multiplying and dividing rational expressions 135080)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: simplify, reduce
Question: When you multiply or divide two rational expressions, keep in mind that you may be able to _____ the result.

Attempt	**Incorrect Feedback**
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: simplify.

Question 9b of 9 (1 multiplying and dividing rational expressions 289539)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: reduced
Question: When you multiply or divide two rational expressions, the result may not always be in _____ form.

Attempt	**Incorrect Feedback**
1st	

	Correct Feedback

	Correct!

	Global Incorrect Feedback
	The correct answer is: reduced.

Question 9c of 9 (1 multiplying and dividing rational expressions 289540)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: simplify, reduce

Question: After multiplying or dividing two rational expressions, it is sometimes possible to _____ the resulting expression.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: simplify.

PREVIEW CLOSE

Quiz: Adding and Subtracting Rational Expressions

Question 1a of 11 (3 adding fractions 91410)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 13/15

Question: Calculate the sum of the fractions below. Enter your answer as a fraction, using a slash (/) as the fraction bar.

$$\frac{1}{5} + \frac{2}{3}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 13/15.

Question 1b of 11 (3 adding fractions 289702)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 17/12

Question: Calculate the sum of the fractions below. Enter your answer as a fraction, using a slash (/) as the fraction bar.

$$\frac{2}{3} + \frac{3}{4}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback

	The correct answer is: 17/12.

Question 1c of 11 (3 adding fractions 289703)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 17/35

Question: Calculate the sum of the fractions below. Enter your answer as a fraction, using a slash (/) as the fraction bar.

$$\frac{2}{7} + \frac{1}{5}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 17/35.

Question 2a of 11 (3 subtracting fractions 91411)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 3/20

Question: Calculate the difference of the fractions below. Enter your answer as a fraction, using a slash (/) as the fraction bar.

$$\frac{3}{4} - \frac{3}{5}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback

	The correct answer is: 3/20.

Question 2b of 11 (3 subtracting fractions 289704)

Maximum Attempts: 1

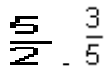
Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 19/10

Question: Calculate the difference of the fractions below. Enter your answer as a fraction, using a slash (/) as the fraction bar.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 19/10.

Question 2c of 11 (3 subtracting fractions 289705)

Maximum Attempts: 1

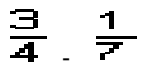
Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: 17/28

Question: Calculate the difference of the fractions below. Enter your answer as a fraction, using a slash (/) as the fraction bar.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback

	The correct answer is: 17/28.

Question 3a of 11 (3 adding rational expressions 91412)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the sum of the fractions below?

$$\frac{2}{3x} + \frac{5}{3x}$$

	Choice	Feedback
A.	$\frac{7}{6x^2}$	
B.	$\frac{10}{9x^2}$	
***C.**	$\frac{7}{3x}$	Correct!
D.	$\frac{7}{6x}$	

Global Incorrect Feedback
The correct answer is: $\frac{7}{3x}$.

Question 3b of 11 (3 adding rational expressions 289706)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the sum of the fractions below?

$$\frac{1}{2x} + \frac{6}{2x}$$

	Choice	Feedback
A.	$\frac{6}{4x^2}$	
B.	$\frac{7}{4x}$	

C.	$\frac{7}{4x^2}$	
*D.	$\frac{7}{2x}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{7}{2x}$.

Question 3c of 11 (3 adding rational expressions 289707)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the sum of the fractions below?

$$\frac{3}{5x} + \frac{9}{5x}$$

	Choice	Feedback
*A.	$\frac{12}{5x}$	Correct!
B.	$\frac{12}{2x^2}$	
C.	$\frac{27}{2x^2}$	
D.	$\frac{12}{10x}$	

Global Incorrect Feedback
The correct answer is: $\frac{12}{5x}$.

Question 4a of 11 (3 subtracting rational expressions 91413)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the difference of the fractions below?

$$\frac{7x}{5} - \frac{x}{5}$$

	Choice	Feedback

A.	$\frac{7}{5}$	
B.	$6x$	
***C.**	$\frac{6x}{5}$	Correct!
D.	$\frac{7x}{5}$	

Global Incorrect Feedback
The correct answer is: $\frac{6x}{5}$.

Question 4b of 11 (3 subtracting rational expressions 289708)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the difference of the fractions below?

$$\frac{6x}{7} - \frac{2x}{7}$$

	Choice	**Feedback**
A.	$4x$	
***B.**	$\frac{4x}{7}$	Correct!
C.	$\frac{4}{7}$	
D.	4	

Global Incorrect Feedback
The correct answer is: $\frac{4x}{7}$.

Question 4c of 11 (3 subtracting rational expressions 289709)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the difference of the fractions below?

$\frac{10x}{3} - \frac{2x}{3}$

	Choice	Feedback
A.	$8x$	
*B.	$\frac{0x}{3}$	Correct!
C.	8	
D.	$\frac{8}{3x}$	

Global Incorrect Feedback
The correct answer is: $\frac{8x}{3}$.

Question 5a of 11 (3 adding rational expressions 91414)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What is the sum of the rational expressions below?

$$\frac{2x+3}{3x} + \frac{x}{x+1}$$

	Choice	Feedback
A.	$\frac{2x^2+3x}{3x^2+3x}$	
*B.	$\frac{5x^2+5x+3}{3x^2+3x}$	Correct!
C.	$\frac{3x^2+2x+4}{4x+1}$	
D.	$\frac{3x+3}{4x+1}$	

Global Incorrect Feedback
The correct answer is: $\frac{5x^2+5x+3}{3x^2+3x}$.

Question 5b of 11 (3 adding rational expressions 289710)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What is the sum of the rational expressions below?

$\frac{3x-1}{2x} + \frac{3x}{x-1}$

	Choice	Feedback
A.	$\frac{6x-1}{3x-1}$	
B.	$\frac{5x-1}{2x^2-2x}$	
C.	$\frac{5x-1}{2x^2-2x}$	
***D.**	$\frac{9x^2-4x+1}{2x^2-2x}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{9x^2-4x+1}{2x^2-2x}$.

Question 5c of 11 (3 adding rational expressions 289711)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What is the sum of the rational expressions below?

$\frac{x-4}{2x} + \frac{3x}{2x-1}$

	Choice	Feedback
***A.**	$\frac{8x^2-3x+4}{4x^2-2x}$	Correct!
B.	$\frac{4x-4}{4x^2-2x}$	
C.	$\frac{4x-4}{4x-1}$	
D.	$\frac{5x^2-12x}{4x-1}$	

Global Incorrect Feedback

The correct answer is: $\frac{8x^2-9x+4}{4x^2-2x}$.

Question 6a of 11 (3 subtracting rational expressions 91415)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the difference of the rational expressions below?

$$\frac{6x-1}{2x^2}-\frac{3}{x}$$

	Choice	Feedback
A.	$\frac{6x^2-3x-1}{2x^2-x}$	
B.	$\frac{6x-4}{2x}$	
C.	$\frac{6x-7}{2x^2}$	
***D.**	$-\frac{1}{2x^2}$	Correct!

Global Incorrect Feedback
The correct answer is: $-\frac{1}{2x^2}$.

Question 6b of 11 (3 subtracting rational expressions 289712)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the difference of the rational expressions below?

$$\frac{4}{x^2}-\frac{2x-1}{3x}$$

	Choice	Feedback
***A.**	$\frac{-2x^3+x^2+12}{3x^2}$	Correct!
B.	$\frac{-2x^3+x^2+4}{x^2}$	

C.	$\frac{-2x+3}{x^2-3x}$	
D.	$\frac{-2x+5}{3x^2}$	

Global Incorrect Feedback
The correct answer is: $\frac{-2x^2+x^2+12}{3x^2}$.

Question 6c of 11 (3 subtracting rational expressions 289713)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the difference of the rational expressions below?

$$\frac{x+5}{x^2}-\frac{2}{5x}$$

	Choice	**Feedback**
A.	$\frac{x+3}{5x^2}$	
B.	$\frac{-4x+5}{x^2-7}$	
***C.**	$\frac{3x+25}{5x^2}$	Correct!
D.	$\frac{x-3}{x^2-5x}$	

Global Incorrect Feedback
The correct answer is: $\frac{3x+25}{5x^2}$.

Question 7a of 11 (3 adding rational expressions 91416)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the sum of the rational expressions below?

$$\frac{2x}{x+2}+\frac{x}{x-3}$$

	Choice	**Feedback**

A.	$\frac{3x}{2x-1}$	
B.	$\frac{2x}{2x-2}$	
***C.**	$\frac{3x^2-4x}{x^2-x-6}$	Correct!
D.	$\frac{3x^2+8x}{x^2+x-6}$	

Global Incorrect Feedback
The correct answer is: $\frac{3x^2-4x}{x^2-x-6}$.

Question 7b of 11 (3 adding rational expressions 289714)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: What is the sum of the rational expressions below?

$\frac{x}{x-1}+\frac{3x}{x+2}$

	Choice	**Feedback**
A.	$\frac{4x}{2x+1}$	
***B.**	$\frac{4x^2-x}{x^2+x-2}$	Correct!
C.	$\frac{4x}{x+1}$	
D.	$\frac{4x^2-2}{x^2+x-2}$	

Global Incorrect Feedback
The correct answer is: $\frac{4x^2-x}{x^2+x-2}$.

Question 7c of 11 (3 adding rational expressions 289715)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2

Question: What is the sum of the rational expressions below?

$$\frac{3x}{x+2}+\frac{x}{x+4}$$

	Choice	Feedback
*A.	$\frac{4x^2+14x}{x^2+6x+8}$	Correct!
B.	$\frac{4x^2+14x+8}{x^2+6x+8}$	
C.	$\frac{4x}{2x+6}$	
D.	$\frac{3x^2}{x^2+8}$	

Global Incorrect Feedback
The correct answer is: $\frac{4x^2+14x}{x^2+6x+8}$.

Question 8a of 11 (3 subtracting rational expressions 91417)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What is the difference of the rational expressions below?

$$\frac{3x}{x+1}-\frac{5}{x}$$

	Choice	Feedback
A.	$\frac{3x-6}{x+1}$	
B.	$\frac{15}{x+1}$	
C.	$\frac{-2x-5}{x(x+1)}$	
*D.	$\frac{3x^2-5x-5}{x^2+x}$	Correct!

Global Incorrect Feedback
The correct answer is: $\frac{3x^2-5x-5}{x^2+x}$.

Question 8b of 11 (3 subtracting rational expressions 289716)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What is the difference of the rational expressions below?

$$\frac{2x}{x+3}-\frac{4}{x}$$

	Choice	Feedback
A.	$\frac{2x-4}{x^2+7x}$	
B.	$\frac{2x-4}{2x+3}$	
*C.	$\frac{2x^2-4x-12}{x^2+3x}$	Correct!
D.	$\frac{8x}{2x+3}$	

Global Incorrect Feedback
The correct answer is: $\frac{2x^2-4x-12}{x^2+3x}$.

Question 8c of 11 (3 subtracting rational expressions 289717)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What is the difference of the rational expressions below?

$$\frac{x}{x-2}-\frac{3}{x}$$

	Choice	Feedback
A.	$\frac{x^2-3x-6}{x^2-2x}$	
B.	$\frac{x-3}{x^2\ \ 2x}$	
*C.	$\frac{x^2-3x+6}{x^2-2x}$	Correct!
D.	$\frac{x-3}{-2}$	

Global Incorrect Feedback
The correct answer is: $\frac{x^2-3x+6}{x^2-2x}$.

Question 9a of 11 (1 adding rational expressions 135085)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: numerators, numeraters

Question: To add two rational expressions that have the *same* denominator, you simply add the _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: numerators.

Question 9b of 11 (1 adding rational expressions 289718)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: numerators, numeraters

Question: To add two rational expressions with equal denominators, you add their _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: numerators.

Question 9c of 11 (1 adding rational expressions 289719)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: denominators, denominaters

Question: To add two rational expressions by simply adding their numerators, you must first make sure that the _____ of the expressions are equal.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: denominators.

Question 10a of 11 (1 subtracting rational expressions 135086)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: numerators, numeraters

Question: To subtract two rational expressions that have a common denominator, you simply subtract the _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: numerators.

Question 10b of 11 (1 subtracting rational expressions 289720)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: denominators, denominaters

Question: In order to subtract two rational expressions by simply subtracting their numerators, you must make sure that their _____ are equal.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: denominators.

Question 10c of 11 (1 subtracting rational expressions 289721)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: subtract

Question: To subtract two rational expressions that have a common denominator, you simply _____ the numerators.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: subtract.

Question 11a of 11 (1 adding and subtracting rational expressions 135087)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: After you add or subtract two rational expressions, it's a good idea to see if you can _____ your answer.

	Choice	Feedback
A.	divide	
B.	subtract	
***C.**	reduce	Correct!

D.	infer	

Global Incorrect Feedback
The correct answer is: reduce.

Question 11b of 11 (1 adding and subtracting rational expressions 289722)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: After you add or subtract two rational expressions, the next step is to put your answer in _____ form.

	Choice	**Feedback**
A.	reciprocal	
***B.**	reduced	Correct!
C.	divided	
D.	variable	

Global Incorrect Feedback
The correct answer is: reduced.

Question 11c of 11 (1 adding and subtracting rational expressions 289723)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: After adding or subtracting two rational expressions, you should put the result in _____ form by reducing it.

	Choice	**Feedback**
A.	factored	
B.	reciprocal	
C.	divided	
***D.**	simplest	Correct!

Global Incorrect Feedback
The correct answer is: simplest.

PREVIEW CLOSE

Quiz: Inverse Variation

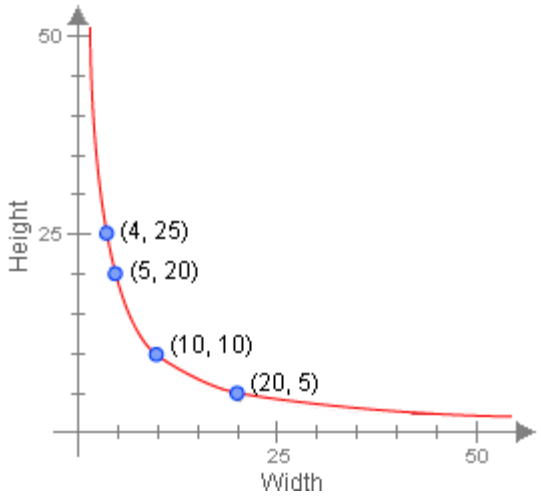
Question 1a of 9 (2 recognizing a graph of inverse variation 91673)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: The figure below is the graph of the dimensions of a rectangle whose adjacent side lengths exhibit *inverse* variation.



	Choice	Feedback
*A.	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

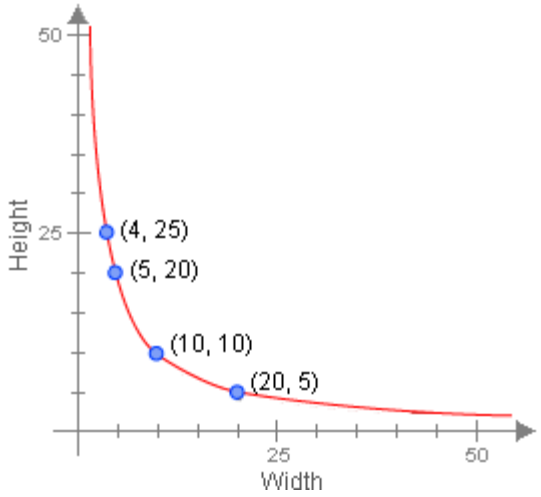
Question 1b of 9 (2 recognizing a graph of inverse variation 289787)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: The figure below is the graph of the dimensions of a rectangle whose adjacent side lengths exhibit *direct* variation.



	Choice	Feedback
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

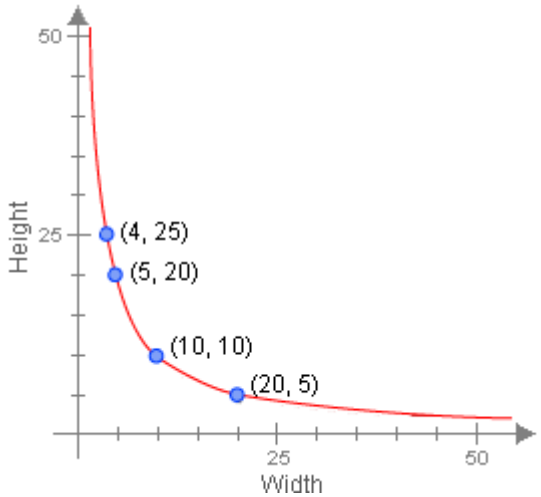
Question 1c of 9 (2 recognizing a graph of inverse variation 289788)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: The figure below is the graph of the dimensions of a rectangle whose adjacent side lengths exhibit *no* variation.



	Choice	Feedback
A.	True	

***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

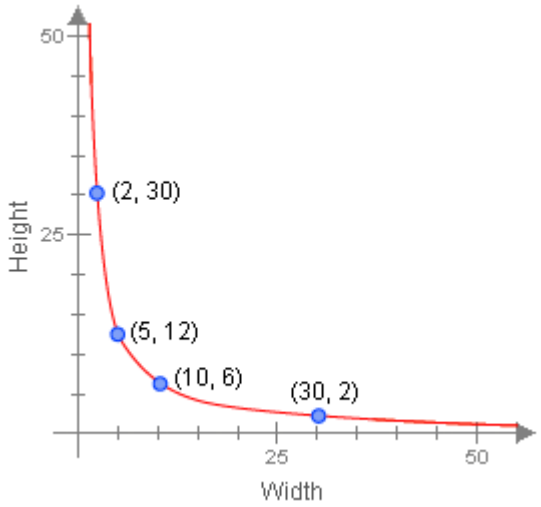
Question 2a of 9 (2 recognizing a graph of inverse variation 91674)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: The figure below is the graph of the dimensions of a rectangle whose adjacent side lengths exhibit *inverse* variation.



	Choice	**Feedback**
***A.**	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

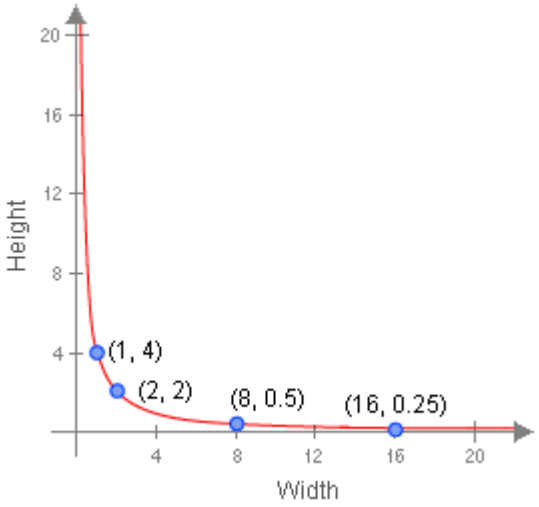
Question 2b of 9 (2 recognizing a graph of inverse variation 289789)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: The figure below is the graph of the dimensions of a rectangle whose adjacent side lengths exhibit *inverse* variation.



	Choice	Feedback
*A.	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

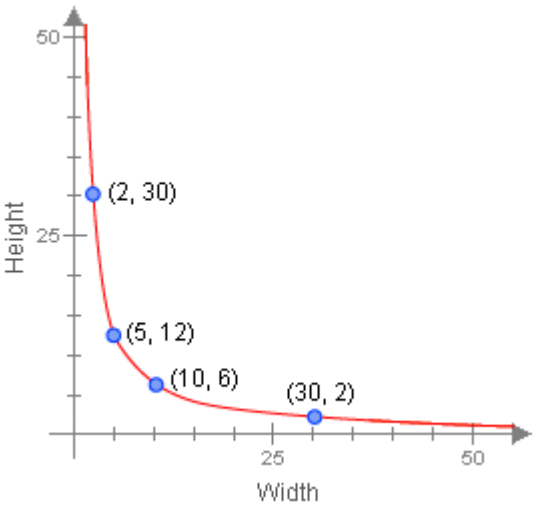
Question 2c of 9 (2 recognizing a graph of inverse variation 289790)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: The figure below is the graph of the dimensions of a rectangle whose adjacent side lengths exhibit *direct* variation.



	Choice	Feedback

A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 3a of 9 (3 finding a constant of direct variation using a graph 91675)

Maximum Attempts: 1

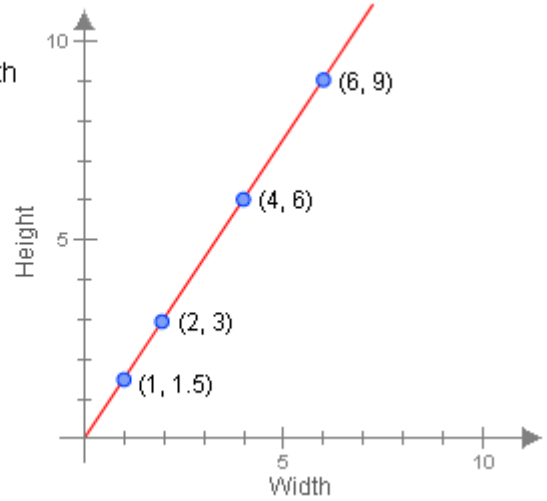
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 1.5

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.

Height = Constant • Width



Attempt	**Incorrect Feedback**
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1.5.

Question 3b of 9 (3 finding a constant of direct variation using a graph 289791)

Maximum Attempts: 1

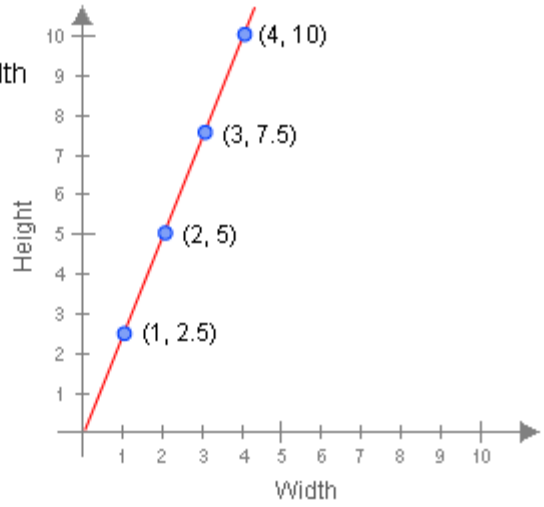
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 2.5

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.

Height = Constant • Width



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.5.

Question 3c of 9 (3 finding a constant of direct variation using a graph 289792)

Maximum Attempts: 1

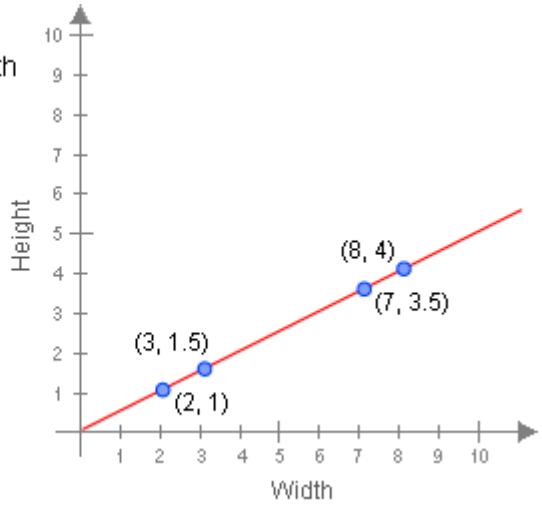
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 0.5

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.

Height = Constant ▪ Width



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 0.5.

Question 4a of 9 (3 finding a constant of direct variation using a graph 91676)

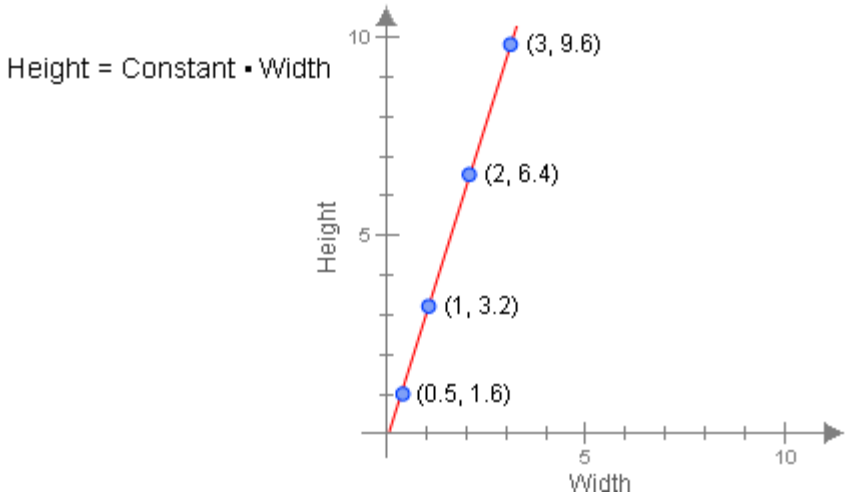
Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 3.2

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 3.2.

Question 4b of 9 (3 finding a constant of direct variation using a graph 289793)

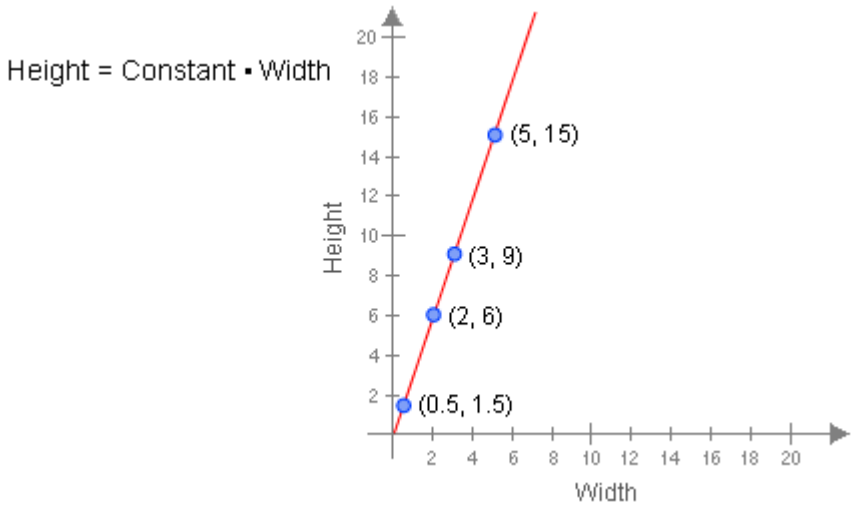
Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 3

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 3.

Question 4c of 9 (3 finding a constant of direct variation using a graph 289794)

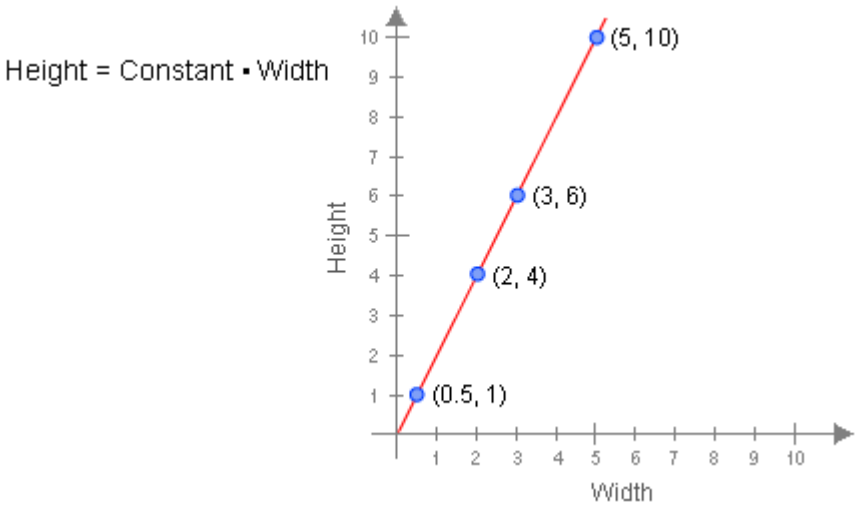
Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 2

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 5a of 9 (3 finding a constant of inverse variation using a graph 91677)

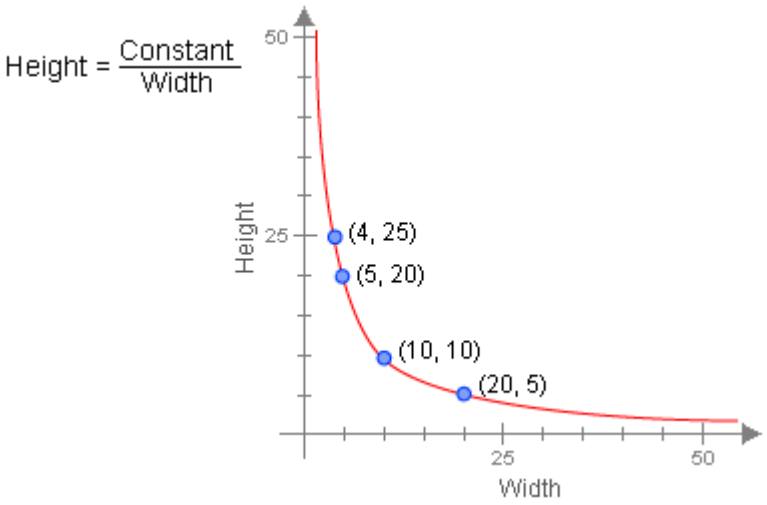
Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 100

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 100.

Question 5b of 9 (3 finding a constant of inverse variation using a graph 289795)

Maximum Attempts: 1

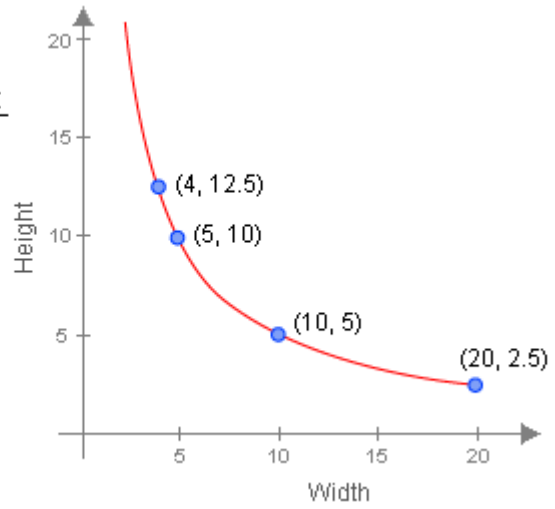
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 50

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.

$$\text{Height} = \frac{\text{Constant}}{\text{Width}}$$



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 50.

Question 5c of 9 (3 finding a constant of inverse variation using a graph 289796)

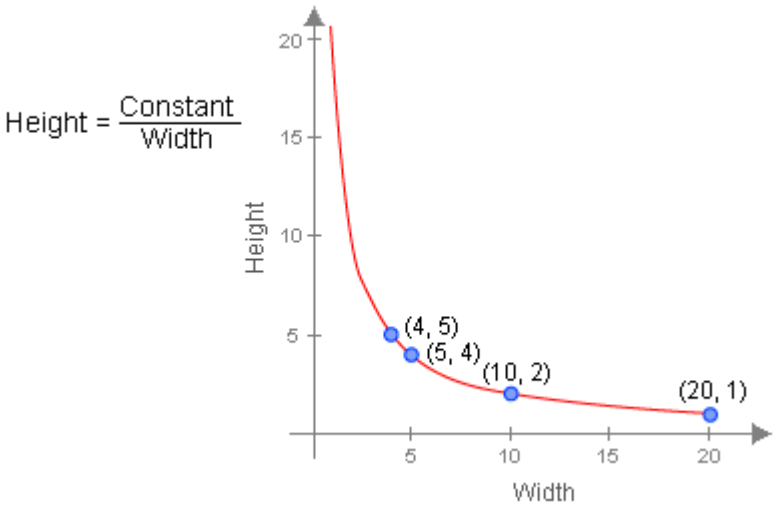
Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 20

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 20.

Question 6a of 9 (3 finding a constant of inverse variation using a graph 91678)

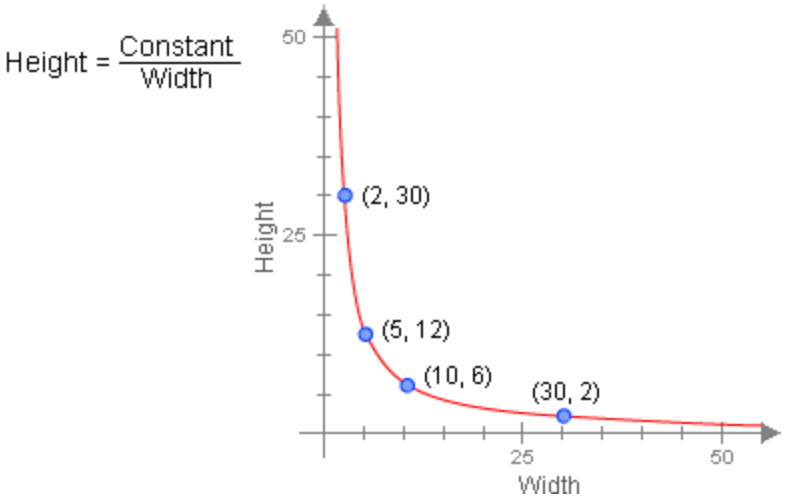
Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 60

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 60.

Question 6b of 9 (3 finding a constant of inverse variation using a graph 289797)

Maximum Attempts: 1

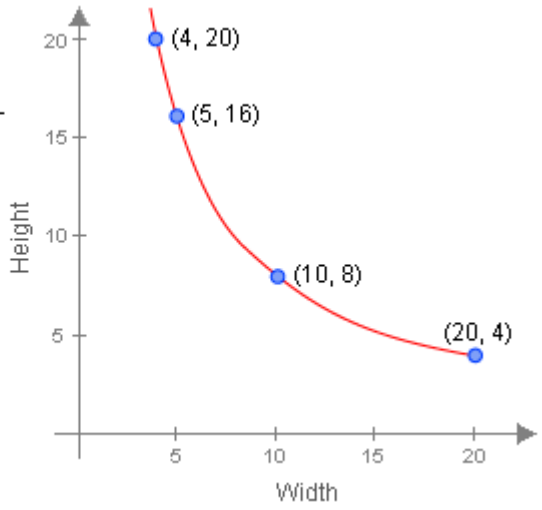
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 80

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.

$$\text{Height} = \frac{\text{Constant}}{\text{Width}}$$



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 80.

Question 6c of 9 (3 finding a constant of inverse variation using a graph 289798)

Maximum Attempts: 1

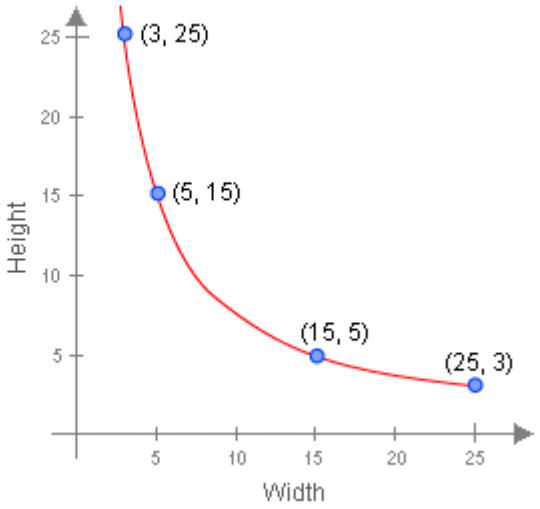
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 75

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.

$$\text{Height} = \frac{\text{Constant}}{\text{Width}}$$



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 75.

Question 7a of 9 (3 finding a constant of inverse variation using a graph 91679)

Maximum Attempts: 1

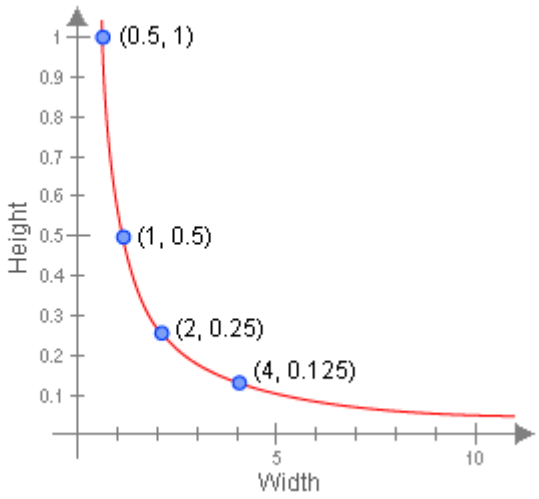
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 0.5

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.

$$\text{Height} = \frac{\text{Constant}}{\text{Width}}$$



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 0.5.

Question 7b of 9 (3 finding a constant of inverse variation using a graph 289799)

Maximum Attempts: 1

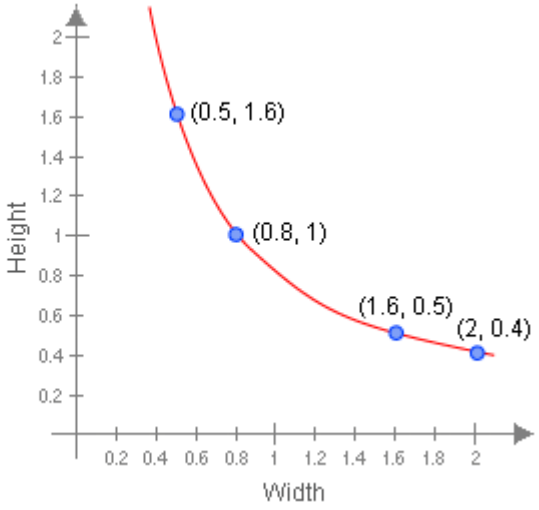
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 0.8

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.

$$\text{Height} = \frac{\text{Constant}}{\text{Width}}$$



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 0.8.

Question 7c of 9 (3 finding a constant of inverse variation using a graph 289801)

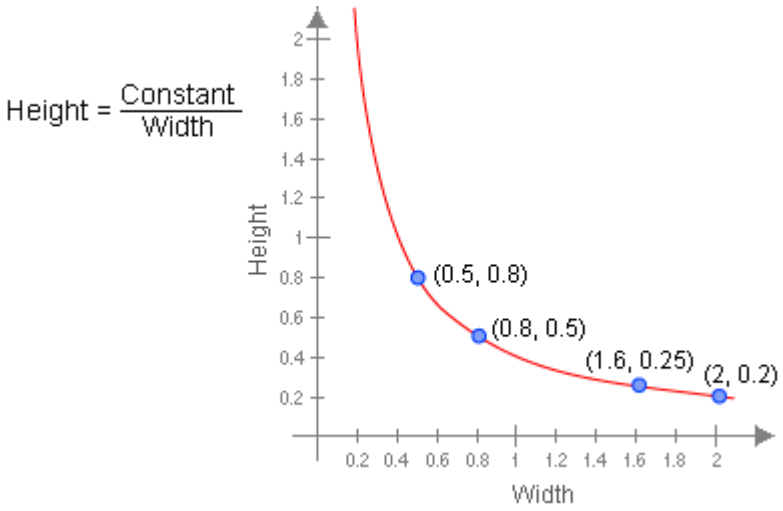
Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 0.4

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to one decimal place.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 0.4.

Question 8a of 9 (3 finding a constant of inverse variation using a graph 91680)

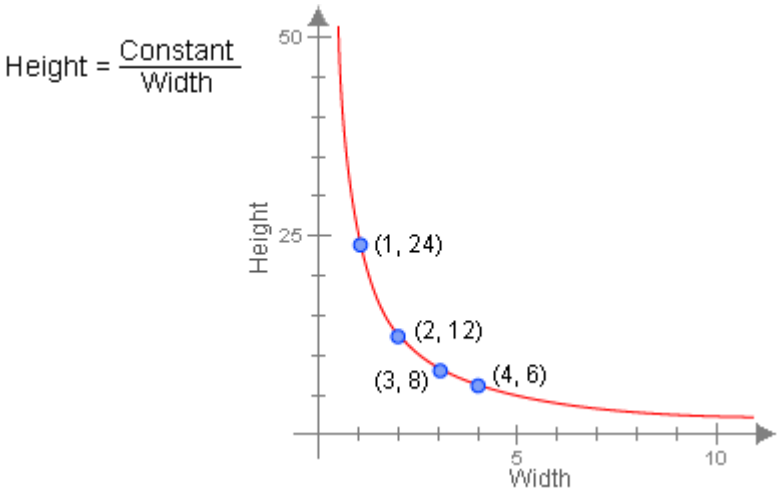
Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 24

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 24.

Question 8b of 9 (3 finding a constant of inverse variation using a graph 289802)

Maximum Attempts: 1

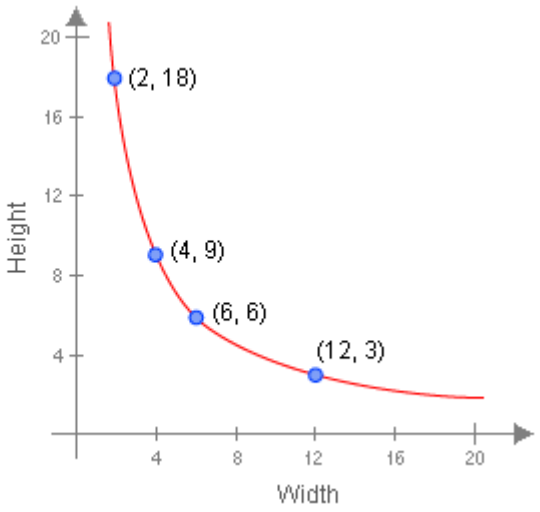
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 36

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.

$$\text{Height} = \frac{\text{Constant}}{\text{Width}}$$



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 36.

Question 8c of 9 (3 finding a constant of inverse variation using a graph 289803)

Maximum Attempts: 1

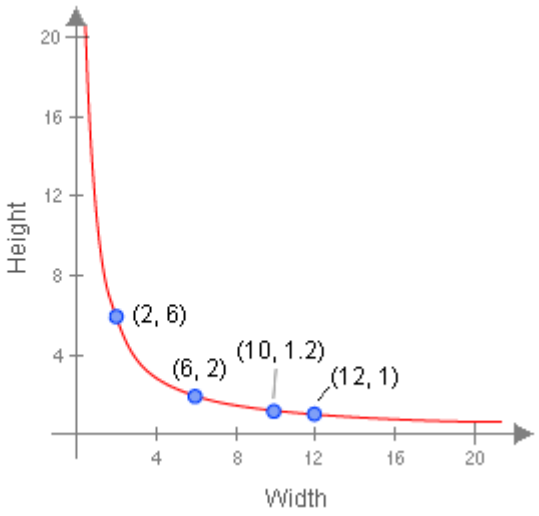
Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 12

Question: Using the graph, find the value of the constant in the equation below. If necessary, round your answer to the nearest integer.

$$\text{Height} = \frac{\text{Constant}}{\text{Width}}$$



Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 12.

Question 9a of 9 (1 finding a constant of inverse or direct variation 135097)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: After you have determined if two quantities are in direct or inverse variation, you can find the _____ of the equation by solving for it.

	Choice	Feedback
A.	variable	
B.	degree	
***C.**	constant	Correct!
D.	value	

Global Incorrect Feedback

The correct answer is: constant.

Question 9b of 9 (1 finding a constant of inverse or direct variation 289804)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: After you have determined if two quantities are in direct or inverse variation, the equation's _____ can be solved for.

	Choice	Feedback
***A.**	constant	Correct!
B.	degree	
C.	root	
D.	value	

Global Incorrect Feedback
The correct answer is: constant.

Question 9c of 9 (1 finding a constant of inverse or direct variation 289805)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: After determining if two quantities are in inverse or direct _____, you can find the equation's constant by solving for it.

	Choice	Feedback
A.	fraction	
B.	value	
C.	root	
***D.**	variation	Correct!

Global Incorrect Feedback
The correct answer is: variation.

PREVIEW CLOSE

Quiz: Rational Functions

Question 1a of 14 (1 recognizing rational functions 91961)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: A rational function is a function whose equation contains a rational expression.

	Choice	Feedback
*A.	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 1b of 14 (1 recognizing rational functions 289815)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: If the equation of a function is a rational expression, the function is rational.

	Choice	Feedback
*A.	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 1c of 14 (1 recognizing rational functions 289816)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: The equation of a rational function does *not* have to contain a rational expression.

	Choice	Feedback
A.	True	

***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 2a of 14 (2 recognizing rational functions 91962)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question:

The function $F(x) = \frac{2x}{3}$ is an example of a rational function.

	Choice	Feedback
***A.**	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 2b of 14 (2 recognizing rational functions 289817)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question:

The function $F(x) = \frac{1}{x}$ is *not* an example of a rational function.

	Choice	Feedback
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 2c of 14 (2 recognizing rational functions 289818)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question:

The function $F(x) = \frac{6x-2}{5}$ is an example of a rational function.

	Choice	Feedback
*A.	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 3a of 14 (2 rational functions used to study inverse variation 91963)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: You can use rational functions to study the relationships of inverse variation.

	Choice	Feedback
*A.	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 3b of 14 (2 rational functions used to study inverse variation 289819)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: You can use rational functions to study the relationships of inverse variation.

	Choice	Feedback
*A.	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 3c of 14 (2 rational functions used to study inverse variation 289820)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: You can use rational functions to study the relationships of inverse variation.

	Choice	Feedback
*A.	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 4a of 14 (2 understanding inverse variation 91964)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: If you double the input of a function and it results in half the output, and if you triple the input and it results in a third of the output, what can be guessed about the function? *Check all that apply.*

Correct Answers:

	Choice
A.	The function is most likely directly proportional.
*B.	The function is most likely inversely proportional.
C.	More input results in more output.
*D.	More input results in less output.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: • The function is most likely inversely proportional. • More input results in less output.

Question 4b of 14 (2 understanding inverse variation 289821)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: If you quadruple the input of a function and the resulting output is one-fourth the original output, what may be true of the function? *Check all that apply.*

Correct Answers:

	Choice
A.	The function is directly proportional.
*B.	The function is inversely proportional.
*C.	More input results in less output.
D.	More input results in more output.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: • The function is inversely proportional. • More input results in less output.

Question 4c of 14 (2 understanding inverse variation 289822)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: If you double the input of a function and it results in four times the output, and if you triple the input and it results in six times the output, what can be guessed about the function? *Check all that apply.*

Correct Answers:

	Choice

*A.	The function is most likely directly proportional.
B.	The function is most likely inversely proportional.
*C.	More input results in more output.
D.	More input results in less output.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: • The function is most likely directly proportional. • More input results in more output.

Question 5a of 14 (1 recognizing rational functions 91965)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: A rational function is _____.

	Choice	Feedback
A.	a function whose inequality contains a rational expression.	
B.	an equation whose function contains a rational expression.	
*C.	a function whose equation contains a rational expression.	Correct!
D.	a fraction whose equation contains a rational expression.	
E.	a function whose equation contains a fractional expression.	

Global Incorrect Feedback
The correct answer is: a function whose equation contains a rational expression.

Question 5b of 14 (1 recognizing rational functions 289823)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: A rational function is a function whose equation contains _____.

	Choice	Feedback
A.	x^2	
***B.**	a rational expression.	Correct!
C.	a quadratic polynomial.	
D.	a fractional expression.	
E.	a rational number.	

Global Incorrect Feedback
The correct answer is: a rational expression.

Question 5c of 14 (1 recognizing rational functions 289824)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: A function whose equation contains a rational expression is known as _____.

	Choice	Feedback
A.	a polynomial function.	
B.	a relational function.	
C.	a fractional function.	
D.	an expressional function.	
***E.**	a rational function.	Correct!

Global Incorrect Feedback
The correct answer is: a rational function.

Question 6a of 14 (2 putting an inverse variation in function notation 91966)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2

Is Case Sensitive: false

Correct Answer: H(w)=100/w

Question: Scott is painting the wall of a large building and has enough paint to cover 100 square meters of wall space. If Scott first decides on the width of the rectangle he's going to paint, the equation below will tell him what the height of the rectangle can be.

$$\text{Height} = \frac{100}{\text{Width}}$$

If *w* stands for width, the input value, and *H*(*w*) stands for height, the output value, rewrite the equation above using function notation. Use the slash (/) to indicate a fraction.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: *H*(*w*) = 100/*w*.

Question 6b of 14 (2 putting an inverse variation in function notation 289825)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: W(h)=60/h

Question: Richard is painting the wall of a large building and has enough paint to cover 60 square meters of wall space. If Richard first decides on the height of the rectangle he's going to paint, the equation below will tell him what the width of the rectangle can be.

If *h* stands for height, the input value, and *W*(*h*) stands for height, the output value, rewrite the equation above using function notation. Use the slash (/) to indicate a fraction.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback

	The correct answer is: $W(h) = 60/h$.

Question 6c of 14 (2 putting an inverse variation in function notation 289826)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: H(w)=30/w

Question: Franz is painting the wall of a large building and has enough paint to cover 30 square meters of wall space. If Franz first decides on the width of the rectangle he's going to paint, the equation below will tell him what the height of the rectangle can be.

If w stands for width, the input value, and $H(w)$ stands for height, the output value, rewrite the equation above using function notation. Use the slash (/) to indicate a fraction.

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: $H(w) = 30/w$.

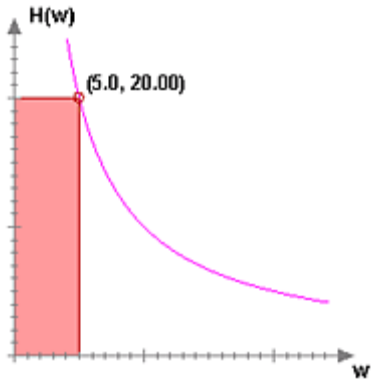
Question 7a of 14 (2 determining the range of an inverse variation function 91967)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What restrictions are there on the range of the function $H(w)$ below?



	Choice	Feedback
*A.	$H(w) > 0$	Correct!
B.	$H(w) < 0$	
C.	$H(w) = 1$	
D.	$H(w) \leq 1$	

Global Incorrect Feedback
The correct answer is: $H(w) > 0$.

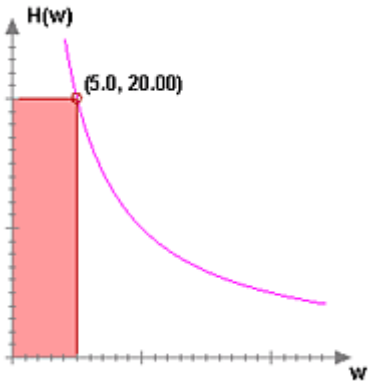
Question 7b of 14 (2 determining the range of an inverse variation function 289827)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What restrictions are there on the range of the function $H(w)$ below?



	Choice	Feedback
A.	$H(w) = 1$	
B.	$H(w) < 0$	

*C.	$H(w) > 0$	Correct!
D.	$H(w) \leq 1$	

Global Incorrect Feedback
The correct answer is: $H(w) > 0$.

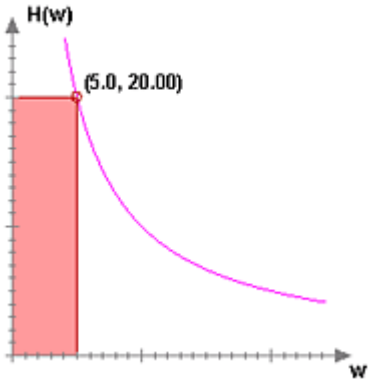
Question 7c of 14 (2 determining the range of an inverse variation function 289828)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: What restrictions are there on the range of the function $H(w)$ below?



	Choice	Feedback
A.	There are no restrictions on the range of $H(w)$.	
B.	$H(w) < 0$	
*C.	$H(w) > 0$	Correct!
D.	$H(w) \leq 1$	

Global Incorrect Feedback
The correct answer is: $H(w) > 0$.

Question 8a of 14 (2 determining the horizontal asymptote of an inverse variation function 91968)

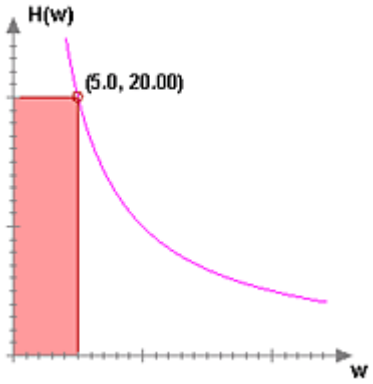
Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, what happens when w gets

very large?



	Choice	Feedback
A.	$H(w)$ gets very large.	
B.	$H(w)$ moves right.	
***C.**	$H(w)$ gets very small.	Correct!
D.	$H(w)$ moves left.	

Global Incorrect Feedback
The correct answer is: $H(w)$ gets very small.

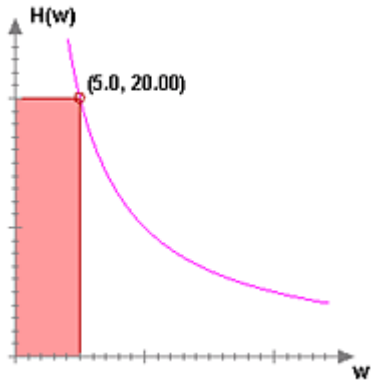
Question 8b of 14 (2 determining the horizontal asymptote of an inverse variation function 289829)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, what happens when w gets very large?



	Choice	Feedback
***A.**	$H(w)$ gets very small.	Correct!

B.	$H(w)$ approaches a vertical asymptote.	
C.	$H(w)$ equals zero.	
D.	$H(w)$ moves left.	

Global Incorrect Feedback
The correct answer is: $H(w)$ gets very small.

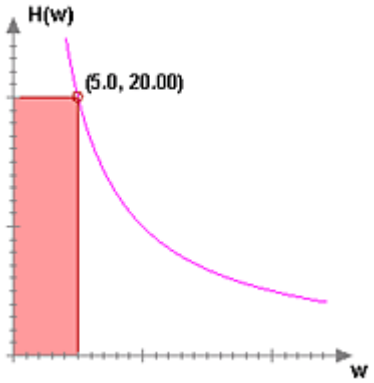
Question 8c of 14 (2 determining the horizontal asymptote of an inverse variation function 289830)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, what happens when w gets very large?



	Choice	**Feedback**
A.	$H(w)$ remains constant.	
B.	$H(w)$ becomes undefined.	
C.	$H(w)$ gets very large.	
***D.**	$H(w)$ gets very small.	Correct!

Global Incorrect Feedback
The correct answer is: $H(w)$ gets very small.

Question 9a of 14 (2 determining the vertical asymptote of an inverse variation function 91969)

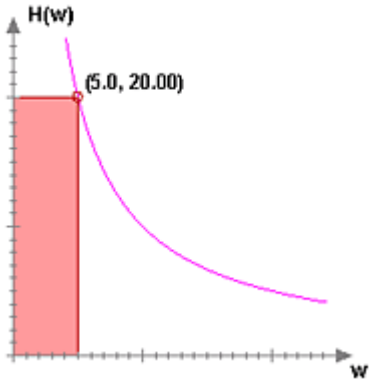
Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, what happens when w gets close

to zero?



	Choice	Feedback
*A.	$H(w)$ gets very large.	Correct!
B.	$H(w)$ moves right.	
C.	$H(w)$ gets very small.	
D.	$H(w)$ moves left.	

Global Incorrect Feedback
The correct answer is: $H(w)$ gets very large.

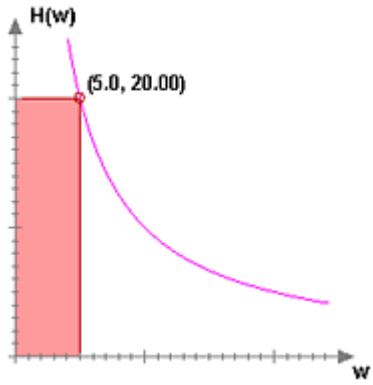
Question 9b of 14 (2 determining the vertical asymptote of an inverse variation function 289831)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, what happens when w gets close to zero?



	Choice	Feedback
A.	$H(w)$ approaches a horizontal asymptote.	

B.	$H(w)$ equals zero.	
C.	$H(w)$ gets very small.	
***D.**	$H(w)$ gets very large.	Correct!

Global Incorrect Feedback
The correct answer is: $H(w)$ gets very large.

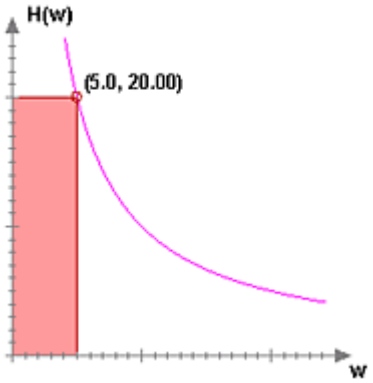
Question 9c of 14 (2 determining the vertical asymptote of an inverse variation function 289832)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, what happens when w gets close to zero?



	Choice	**Feedback**
A.	$H(w)$ becomes undefined.	
***B.**	$H(w)$ gets very large.	Correct!
C.	$H(w)$ gets very small.	
D.	$H(w)$ becomes constant.	

Global Incorrect Feedback
The correct answer is: $H(w)$ gets very large.

Question 10a of 14 (2 determining the horizontal asymptote of an inverse variation function 91970)

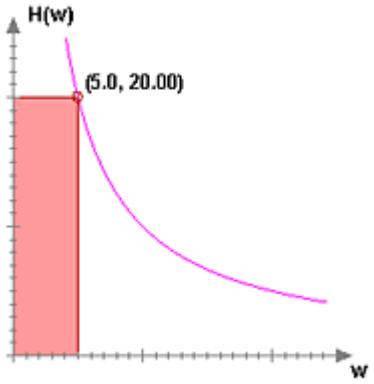
Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, the w-axis is also the _____

for $H(w)$.



	Choice	Feedback
A.	vertical asymptote	
B.	negative output	
C.	postive output	
***D.**	horizontal asymptote	Correct!

Global Incorrect Feedback
The correct answer is: horizontal asymptote.

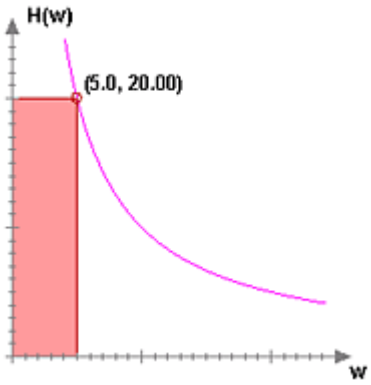
Question 10b of 14 (2 determining the horizontal asymptote of an inverse variation function 289833)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, the w-axis is also the _____ for $H(w)$.



	Choice	Feedback
A.	rational expression	

*B.	horizontal asymptote	Correct!
C.	postive output	
D.	vertical asymptote	

Global Incorrect Feedback
The correct answer is: horizontal asymptote.

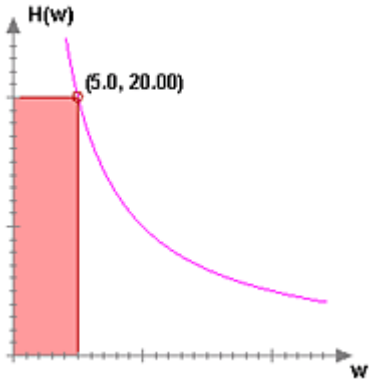
Question 10c of 14 (2 determining the horizontal asymptote of an inverse variation function 289834)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, the w-axis is also the _____ for $H(w)$.



	Choice	Feedback
A.	vertical asymptote	
B.	fractional output	
*C.	horizontal asymptote	Correct!
D.	undefined area	

Global Incorrect Feedback
The correct answer is: horizontal asymptote.

Question 11a of 14 (2 determining the vertical asymptote of an inverse variation function 91971)

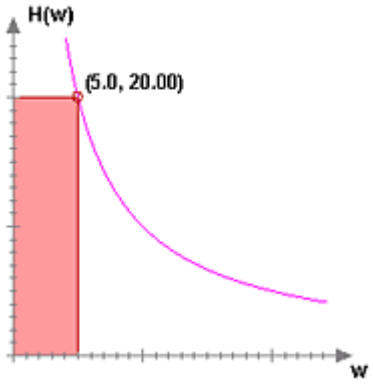
Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, the line $w = 0$ is also the _____

for $H(w)$?



	Choice	Feedback
*A.	vertical asymptote	Correct!
B.	horizontal asymptote	
C.	neutral asymptote	
D.	negative asymptote	
E.	positive asymptote	

Global Incorrect Feedback
The correct answer is: vertical asymptote.

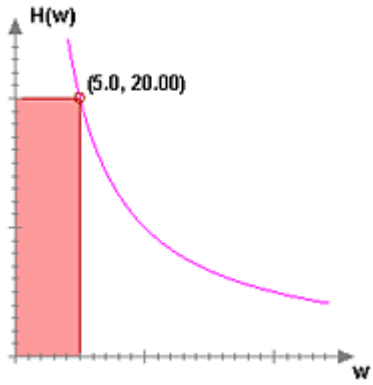
Question 11b of 14 (2 determining the vertical asymptote of an inverse variation function 289835)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, the line $w = 0$ is also the _____ for $H(w)$?



	Choice	Feedback

A.	rational expression	
B.	horizontal asymptote	
***C.**	vertical asymptote	Correct!
D.	negative asymptote	
E.	positive asymptote	

Global Incorrect Feedback
The correct answer is: vertical asymptote.

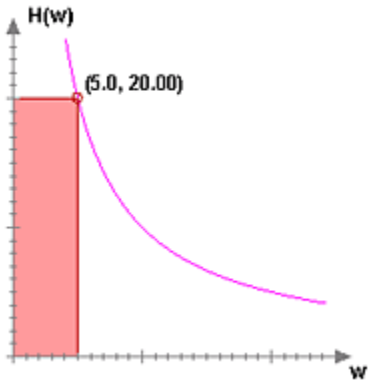
Question 11c of 14 (2 determining the vertical asymptote of an inverse variation function 289836)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: According to the graph of $H(w)$ below, the line $w = 0$ is also the _____ for $H(w)$?



	Choice	**Feedback**
A.	rational expression	
B.	horizontal asymptote	
C.	undefined asymptote	
D.	negative asymptote	
***E.**	vertical asymptote	Correct!

Global Incorrect Feedback
The correct answer is: vertical asymptote.

Question 12a of 14 (1 definition of an asymptote 91972)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: A line is a(n) _____ for a function if the graph of the function gets closer and closer to touching the line but never reaches it.

	Choice	Feedback
A.	diagonal	
B.	array	
***C.**	asymptote	Correct!
D.	diagram	
E.	estimation	

Global Incorrect Feedback
The correct answer is: asymptote.

Question 12b of 14 (1 definition of an asymptote 289837)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: An asymptote is a line that the graph of a function _____.

	Choice	Feedback
A.	defines	
B.	approaches and crosses	
C.	equals	
***D.**	approaches but does not cross	Correct!
E.	divides	

Global Incorrect Feedback
The correct answer is: approaches but does not cross.

Question 12c of 14 (1 definition of an asymptote 289838)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: A line that a function gets closer and closer to but does not reach is called a(n) _____.

	Choice	Feedback

A.	diagonal	
***B.**	asymptote	Correct!
C.	expression	
D.	graph	
E.	constant	

Global Incorrect Feedback
The correct answer is: asymptote.

Question 13a of 14 (2 the relationship of the input to a function of inverse variation to its output 91973)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: In the inverse variation function, what happens to the output when the function's input is doubled?

	Choice	**Feedback**
A.	The output is negated.	
***B.**	The output is halved.	Correct!
C.	The output is doubled.	
D.	The output is reversed.	

Global Incorrect Feedback
The correct answer is: The output is halved.

Question 13b of 14 (2 the relationship of the input to a function of inverse variation to its output 289839)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: In the inverse variation function, what happens to the output when the function's input is multiplied by 3?

	Choice	**Feedback**
A.	The output is zero.	
B.	The output is halved.	
C.	The output is doubled.	
***D.**	The output is divided by 3.	Correct!

Global Incorrect Feedback
The correct answer is: The output is divided by 3.

Question 13c of 14 (2 the relationship of the input to a function of inverse variation to its output 289840)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: In the inverse variation function, what happens to the output when the function's input is halved?

	Choice	Feedback
A.	The output is tripled.	
B.	The output is halved.	
***C.**	The output is doubled.	Correct!
D.	The output is negated.	

Global Incorrect Feedback
The correct answer is: The output is doubled.

Question 14a of 14 (2 the relationship of the input to a function of inverse variation to its output 91974)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: In the inverse variation function, what happens to the output when the function's input value is divided by 3?

	Choice	Feedback
A.	The output is negated.	
B.	The output is divided by 3.	
***C.**	The output is tripled.	Correct!
D.	The output is reversed.	

Global Incorrect Feedback
The correct answer is: The output is tripled.

Question 14b of 14 (2 the relationship of the input to a function of inverse variation to its output 289841)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: In the inverse variation function, what happens to the output when the function's input value is divided by 5?

	Choice	Feedback
A.	The output is squared.	
***B.**	The output is multiplied by 5.	Correct!
C.	The output is divided by 5.	
D.	The output is zero.	

Global Incorrect Feedback
The correct answer is: The output is multiplied by 5.

Question 14c of 14 (2 the relationship of the input to a function of inverse variation to its output 289842)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: In the inverse variation function, what happens to the output when the function's input value is multiplied by 4?

	Choice	Feedback
A.	The output is negated.	
B.	The output is divided by 2.	
C.	The output is multiplied by 4.	
***D.**	The output is divided by 4.	Correct!

Global Incorrect Feedback
The correct answer is: The output is divided by 4.

PREVIEW CLOSE

Quiz: More than One Vertical Asymptote

Question 1a of 12 (2 counting vertical asymptotes 91988)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 2
Question: How many vertical asymptotes does the graph of this function have?

$$F(x) = \frac{3}{x(x-4)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 1b of 12 (2 counting vertical asymptotes 290120)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 2
Question: How many vertical asymptotes does the graph of this function have?

$$F(x) = \frac{2}{x(x+1)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 1c of 12 (2 counting vertical asymptotes 290121)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 1
Question: How many vertical asymptotes does the graph of this function have?

$F(x)=\frac{2}{3(x-7)}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1.

Question 2a of 12 (2 counting vertical asymptotes 91989)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 3
Question: How many vertical asymptotes does the graph of this function have?

$$F(x) = \frac{2}{(x-1)(x+3)(x+8)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 3.

Question 2b of 12 (2 counting vertical asymptotes 290122)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2

Correct Answer: 3

Question: How many vertical asymptotes does the graph of this function have?

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 3.

Question 2c of 12 (2 counting vertical asymptotes 290123)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 2

Question: How many vertical asymptotes does the graph of this function have?

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 3a of 12 (3 finding vertical asymptotes 91990)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of x does the function $F(x)$ have a vertical asymptote? *Check all that apply.*

$$F(x) = \frac{1}{(x - 4)(x + 1)}$$

Correct Answers:

	Choice
*A.	4
*B.	-1
C.	-4
D.	1
E.	0
F.	2

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: 4 and -1.

Question 3b of 12 (3 finding vertical asymptotes 290124)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of *x* does the function *F*(*x*) have a vertical asymptote? *Check all that apply.*

Correct Answers:

	Choice
*A.	-2
B.	2
C.	0
D.	-7
*E.	7
F.	-14

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: -2 and 7.

Question 3c of 12 (3 finding vertical asymptotes 290125)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of x does the function $F(x)$ have a vertical asymptote? *Check all that apply.*

$$F(x)=\frac{1}{(x-1)(x-8)}$$

Correct Answers:

	Choice
A.	9
B.	-1
***C.**	1
D.	-9
E.	-8
***F.**	8

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: 1 and 8.

Question 4a of 12 (3 finding vertical asymptotes 91991)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of x does the function $F(x)$ have a vertical asymptote? *Check all that apply.*

$$F(x) = \frac{2}{3x(x-1)(x+5)}$$

Correct Answers:

	Choice
***A.**	0
***B.**	-5
C.	3
D.	2
E.	-1
***F.**	1

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: 0, -5, and 1.

Question 4b of 12 (3 finding vertical asymptotes 290126)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of *x* does the function *F*(*x*) have a vertical asymptote? *Check all that apply.*

Correct Answers:

	Choice
A.	7
***B.**	-3
C.	3
***D.**	0
E.	-9
***F.**	9

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: -3, 0, and 9.

Question 4c of 12 (3 finding vertical asymptotes 290127)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of x does the function $F(x)$ have a vertical asymptote? *Check all that apply.*

Correct Answers:

	Choice
A.	1
***B.**	-1
C.	3
D.	-5
***E.**	5
***F.**	0

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: -1, 5, and 0.

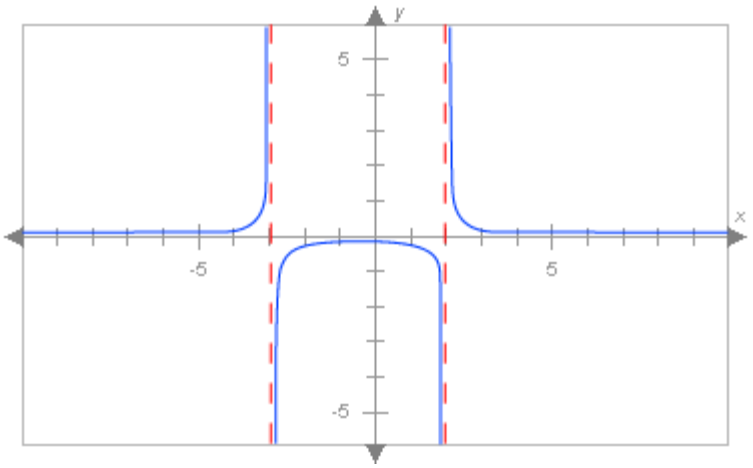
Question 5a of 12 (3 determining the equation of a rational function from its graph 91992)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{1}{x(x-2)}$	
B.	$F(x) = \frac{1}{(x+2)(x-3)}$	
***C.**	$F(x) = \frac{1}{(x-2)(x+3)}$	Correct!
D.	$F(x) = \frac{(x-2)}{(x+3)}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x-2)(x+3)}$.

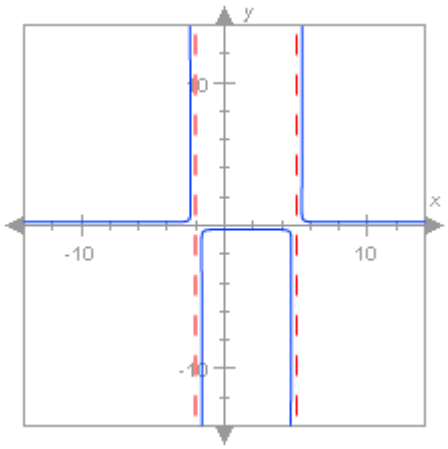
Question 5b of 12 (3 determining the equation of a rational function from its graph 290129)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
*A.	$F(x) = \frac{1}{(x+2)(x-5)}$	Correct!
B.	$F(x) = \frac{1}{(x\ 2)(x+5)}$	
C.	$F(x) = \frac{1}{(2x+5)}$	
D.	$F(x) = \frac{(x\ 2)}{(x+5)}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x+2)(x-5)}$.

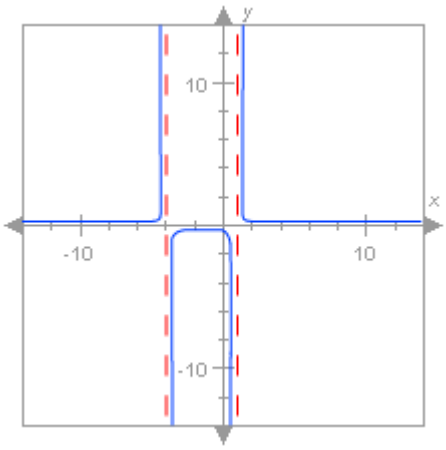
Question 5c of 12 (3 determining the equation of a rational function from its graph 290130)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{1}{(x+1)(x-4)}$	
B.	$F(x) = \frac{1}{x-4}$	
C.	$F(x) = \frac{x+1}{x-4}$	
***D.**	$F(x) = \frac{1}{(x-1)(x+4)}$	Correct!

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x-1)(x+4)}$.

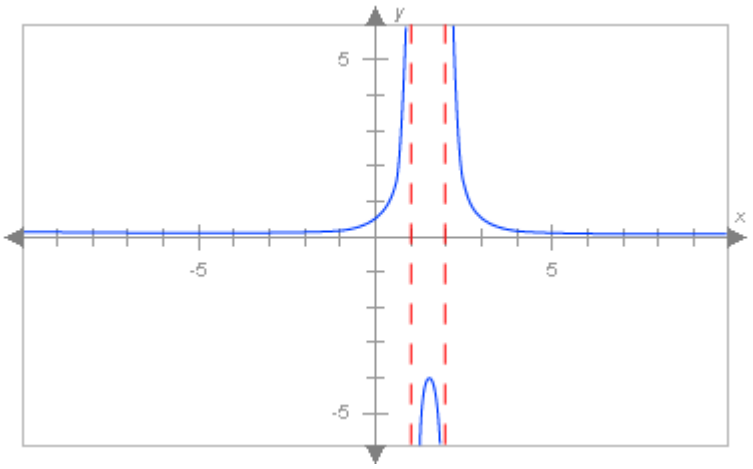
Question 6a of 12 (3 determining the equation of a rational function from its graph 91993)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
*A.	$F(x) = \frac{1}{(x-1)(x-2)}$	Correct!
B.	$F(x) = \frac{(x+2)}{(x-1)}$	
C.	$F(x) = \frac{1}{(x+1)(x+2)}$	
D.	$F(x) = \frac{1}{x(x+1)(x-2)}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x-1)(x-2)}$.

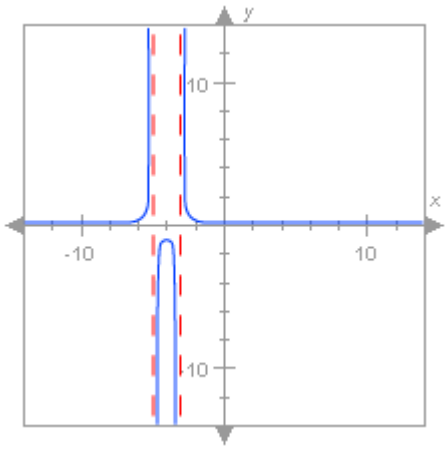
Question 6b of 12 (3 determining the equation of a rational function from its graph 290131)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{1}{(x-3)(x-5)}$	
B.	$F(x) = \frac{x-3}{x-5}$	
***C.**	$F(x) = \frac{1}{(x+3)(x+5)}$	Correct!
D.	$F(x) = \frac{3}{x-5}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x+3)(x+5)}$.

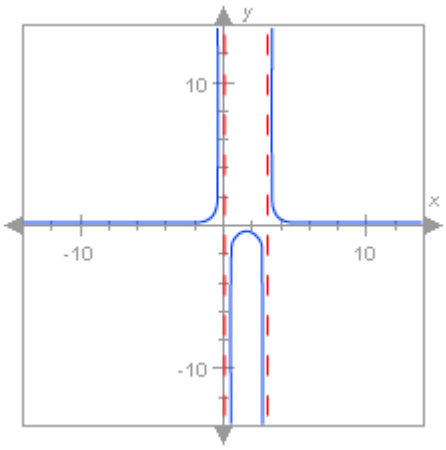
Question 6c of 12 (3 determining the equation of a rational function from its graph 290132)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{x}{x+3}$	
B.	$F(x) = \frac{1}{x(x+3)}$	
***C.**	$F(x) = \frac{1}{x(x-3)}$	Correct!
D.	$F(x) = \frac{3}{-x}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{x(x-3)}$.

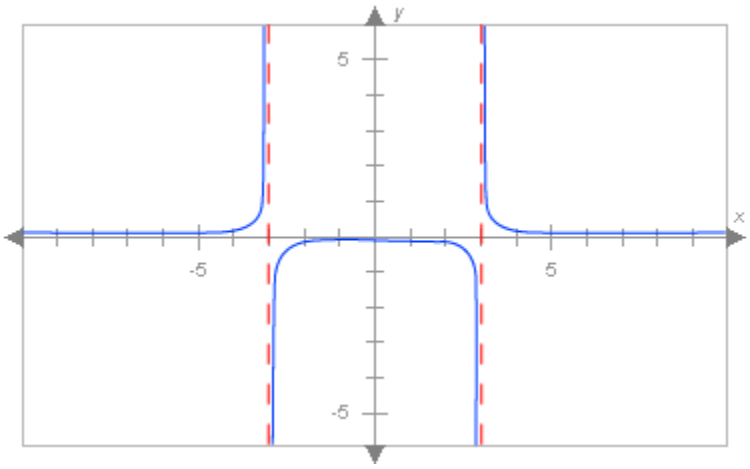
Question 7a of 12 (3 determining the equation of a rational function from its graph 91994)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{(x+3)}{(x-3)}$	
B.	$F(x) = \frac{1}{x(x-3)}$	
***C.**	$F(x) = \frac{1}{(x-3)(x+3)}$	Correct!
D.	$F(x) = \frac{1}{x(x+3)(x-3)}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x-3)(x+3)}$.

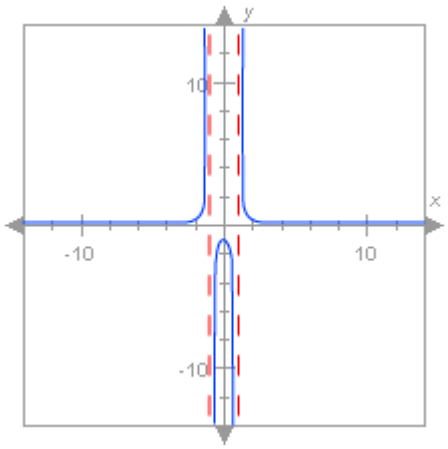
Question 7b of 12 (3 determining the equation of a rational function from its graph 290134)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
*A.	$F(x) = \frac{1}{(x-1)(x+1)}$	Correct!
B.	$F(x) = \frac{x+1}{x-1}$	
C.	$F(x) = \frac{1}{x(x-1)}$	
D.	$F(x) = \frac{x-1}{x+1}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x-1)(x+1)}$.

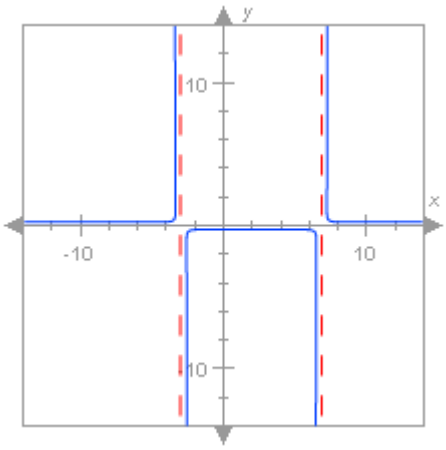
Question 7c of 12 (3 determining the equation of a rational function from its graph 290135)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{x+5}{x-7}$	
B.	$F(x) = \frac{3}{x-7}$	
C.	$F(x) = \frac{1}{(x+7)(x-7)}$	
***D.**	$F(x) = \frac{1}{(x+3)(x-7)}$	Correct!

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x+3)(x-7)}$.

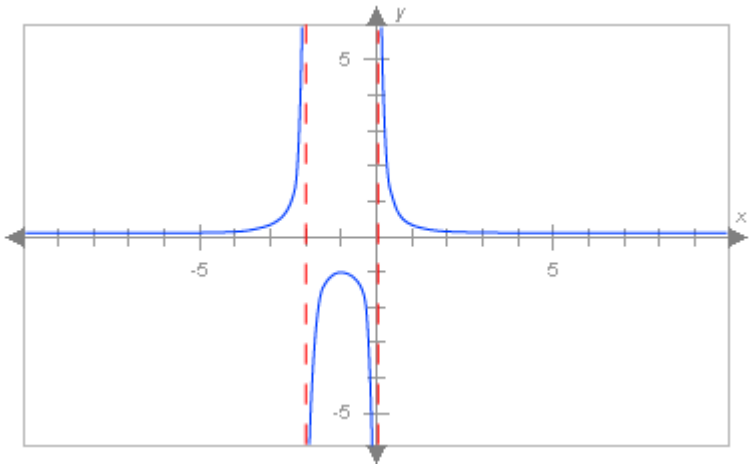
Question 8a of 12 (3 determining the equation of a rational function from its graph 91995)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{2x}{x(x-2)}$	
B.	$F(x) = \frac{(x+1)}{(x+2)(x+0)}$	
C.	$F(x) = \frac{1}{x(x-2)}$	
***D.**	$F(x) = \frac{1}{x(x+2)}$	Correct!

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{x(x+2)}$.

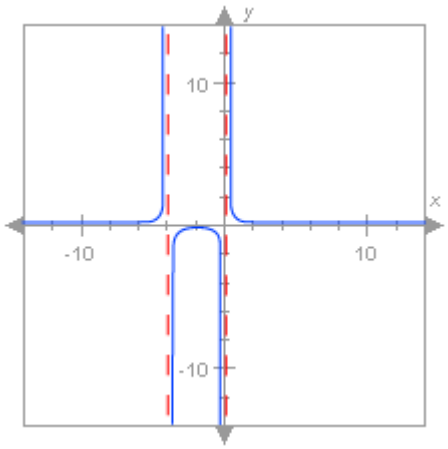
Question 8b of 12 (3 determining the equation of a rational function from its graph 290136)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{x}{2x}$	
***B.**	$F(x) = \frac{1}{x(x+1)}$	Correct!
C.	$F(x) = \frac{x}{x+1}$	
D.	$F(x) = \frac{1}{x(x-1)}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{x(x+1)}$.

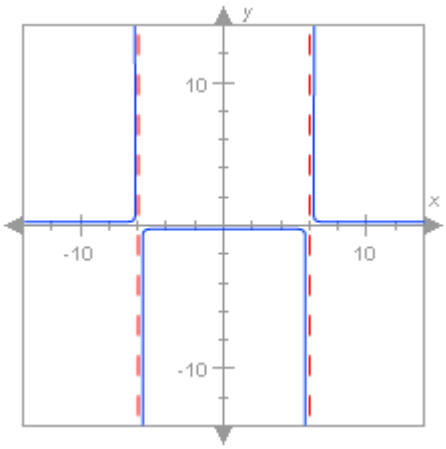
Question 8c of 12 (3 determining the equation of a rational function from its graph 290138)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{1}{x^2 - 36}$	
***B.**	$F(x) = \frac{1}{(x-6)(x+6)}$	Correct!
C.	$F(x) = \frac{x+6}{x-6}$	
D.	$F(x) = \frac{-3}{x+6}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x-5)(x+6)}$.

Question 9a of 12 (2 understanding vertical asymptotes 91996)

Maximum Attempts: 1
Question Type: True-False
Maximum Score: 2
Question: Some rational functions have more than one vertical asymptote.

	Choice	Feedback
***A.**	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 9b of 12 (2 understanding vertical asymptotes 290140)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: All rational functions have more than one vertical asymptote.

	Choice	Feedback
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 9c of 12 (2 understanding vertical asymptotes 290142)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: All rational functions have at least one vertical asymptote.

	Choice	Feedback
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 10a of 12 (2 graphing rational functions 290001)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: To make a sketch of any rational function whose numerator is a number and whose denominator is a factored polynomial, use the following rule of thumb.

The function has a vertical asymptote at every x-value where its denominator is zero, and you can make a table for each vertical asymptote to find out what happens to the function there.

	Choice	Feedback
***A.**	True	Correct!
B.	False	

Global Incorrect Feedback

The correct answer is: True.

Question 10b of 12 (2 graphing rational functions 290152)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: To make a sketch of any rational function whose numerator is a number and whose denominator is a factored polynomial, use the following rule of thumb.

The function has a vertical asymptote at every *x*-value where its numerator is zero, and you can make a table for each vertical asymptote to find out what happens to the function there.

	Choice	Feedback
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 10c of 12 (2 graphing rational functions 290155)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: To make a sketch of any rational function whose numerator is a number and whose denominator is a factored polynomial, use the following rule of thumb.

The function has a vertical asymptote at every *x*-value where its denominator is zero, and the function is always negative between two asymptotes.

	Choice	Feedback
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 11a of 12 (2 counting vertical asymptotes 91998)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 2

Question: How many vertical asymptotes does the graph of this function have?

$$F(x) = \frac{1}{(x+1)(x+2)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 11b of 12 (2 counting vertical asymptotes 290158)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 2

Question: How many vertical asymptotes does the graph of this function have?

$$F(x) = \frac{1}{(x+3)(x-3)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 11c of 12 (2 counting vertical asymptotes 290160)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 1

Question: How many vertical asymptotes does the graph of this function have?

$$F(x) = \frac{\vdots}{5(x+9)}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1.

Question 12a of 12 (3 finding vertical asymptotes 91999)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of x does the function $F(x)$ have a vertical asymptote? *Check all that apply.*

$$F(x) = \frac{1}{(x+1)(x+2)}$$

Correct Answers:

	Choice
A.	2
***B.**	-1
***C.**	-2
D.	-6
E.	0

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: -1 and -2.

Question 12b of 12 (3 finding vertical asymptotes 290164)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of x does the function $F(x)$ have a vertical asymptote? *Check all that apply.*

$$F(x) = \frac{1}{x(x+5)(x-1)}$$

Correct Answers:

	Choice
***A.**	0
B.	-1
***C.**	1
***D.**	-6
E.	6

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: 0, 1, and -6.

Question 12c of 12 (3 finding vertical asymptotes 290167)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: At which values of x does the function $F(x)$ have a vertical asymptote? *Check all that apply.*

$$F(x) = \frac{1}{7(x+2)(x+3)}$$

Correct Answers:

	Choice
***A.**	-3
B.	3
***C.**	-2
D.	2

E.	7

Attempt	**Incorrect Feedback**
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answers are: -3 and -2.

PREVIEW CLOSE

Quiz: Finding Vertical Asymptotes

Question 1a of 13 (3 finding vertical asymptotes 91975)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 1

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x) = \frac{1}{x - 1}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 1.

Question 1b of 13 (3 finding vertical asymptotes 289944)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -3

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x) = \frac{1}{x + 3}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -3.

Question 1c of 13 (3 finding vertical asymptotes 289945)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 2

Question: At what value of *x* does the graph of the function *F*(*x*) have a vertical asymptote?

$$f(x)=\frac{2}{x-2}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 2.

Question 2a of 13 (3 finding vertical asymptotes 91976)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -2

Question: At what value of *x* does the graph of the function *F*(*x*) have a vertical asymptote?

$$F(x) = \frac{1}{x+2}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -2.

Question 2b of 13 (3 finding vertical asymptotes 289946)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -6

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x)=\frac{1}{x+6}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -6.

Question 2c of 13 (3 finding vertical asymptotes 289947)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -1

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x)=\frac{1}{x+1}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -1.

Question 3a of 13 (3 finding vertical asymptotes 91977)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -4

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x) = \frac{1}{x + 4}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -4.

Question 3b of 13 (3 finding vertical asymptotes 289948)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 11

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x) = \frac{3}{x - 11}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 11.

Question 3c of 13 (3 finding vertical asymptotes 289949)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -8

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x)=\frac{1}{x+8}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -8.

Question 4a of 13 (3 finding vertical asymptotes 91978)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 7

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x) = \frac{1}{x-7}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 7.

Question 4b of 13 (3 finding vertical asymptotes 289950)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: -9

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x)=\frac{1}{x+9}$$

Attempt	Incorrect Feedback

1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: -9.

Question 4c of 13 (3 finding vertical asymptotes 289951)

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 2

Correct Answer: 15

Question: At what value of x does the graph of the function $F(x)$ have a vertical asymptote?

$$F(x) = \frac{1}{x-15}$$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Correct!

	Global Incorrect Feedback
	The correct answer is: 15.

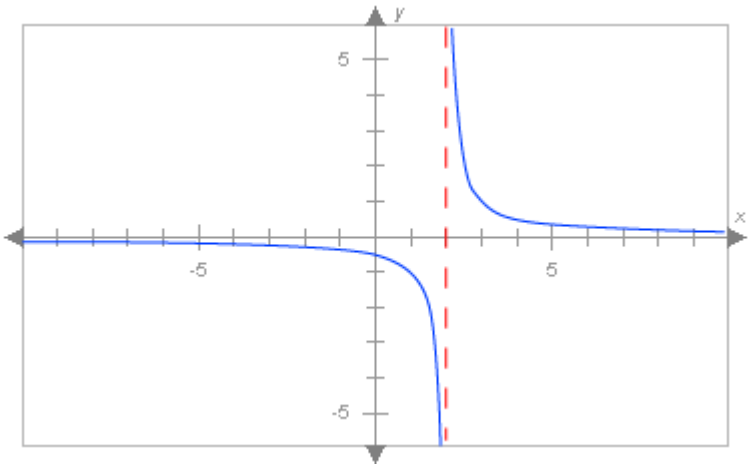
Question 5a of 13 (3 determining the equation of a rational function from its graph 91979)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{1}{x+2}$	
***B.**	$F(x) = \frac{1}{x-2}$	Correct!
C.	$F(x) = \frac{1}{2x}$	
D.	$F(x) = \frac{2}{x}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{x-2}$.

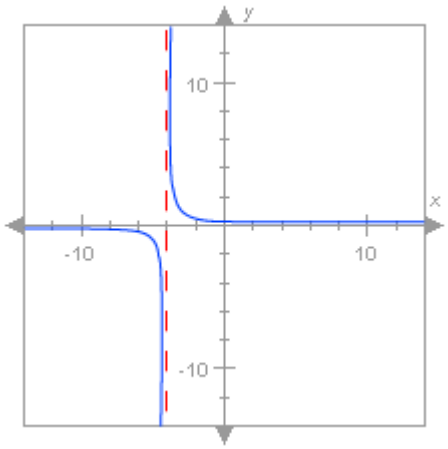
Question 5b of 13 (3 determining the equation of a rational function from its graph 289952)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$f(x)=\frac{1}{x-4}$	
B.	$f(x)=\frac{x}{x}$	
***C.**	$f(x)=\frac{1}{x+4}$	Correct!
D.	$f(x)=\frac{-4}{x}$	

Global Incorrect Feedback
The correct answer is: $f(x)=\frac{1}{x+4}$.

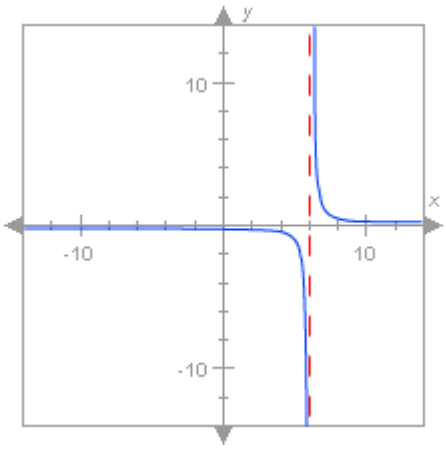
Question 5c of 13 (3 determining the equation of a rational function from its graph 289953)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
*A.	$f(x)=\frac{1}{x-6}$	Correct!
B.	$f(x)=\frac{1}{x+6}$	
C.	$f(x)=\frac{1}{-x}$	
D.	$f(x)=\frac{x}{6}$	

Global Incorrect Feedback
The correct answer is: $f(x)=\frac{1}{x-6}$.

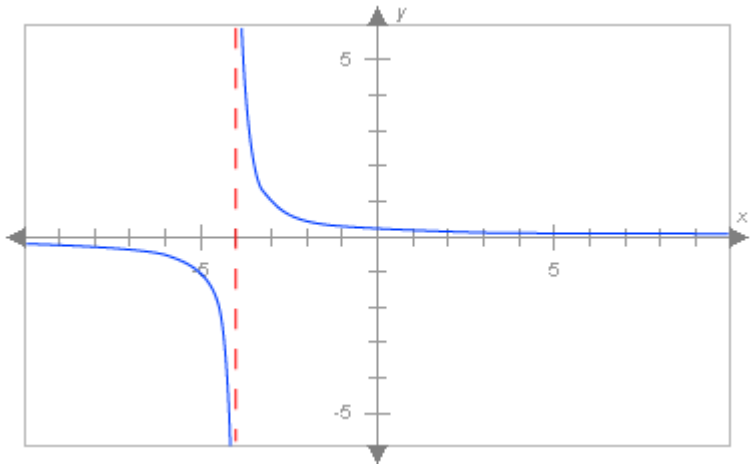
Question 6a of 13 (3 determining the equation of a rational function from its graph 91980)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{1}{4x}$	
***B.**	$F(x) = \frac{1}{x+4}$	Correct!
C.	$F(x) = \frac{1}{x-4}$	
D.	$F(x) = \frac{4}{x}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{x+4}$.

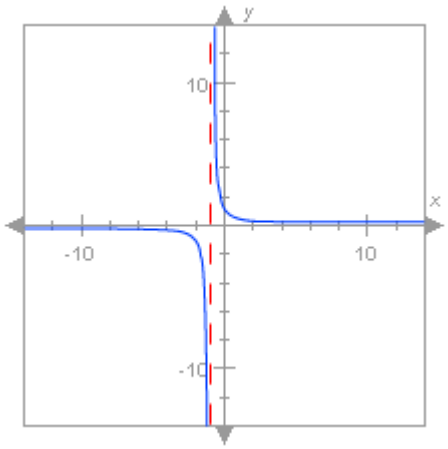
Question 6b of 13 (3 determining the equation of a rational function from its graph 289954)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x)=\frac{1}{x\ 1}$	
B.	$F(x)=\frac{1\ 1\ x}{x}$	
C.	$F(x)=\frac{-1}{x}$	
***D.**	$F(x)=\frac{1}{x+1}$	Correct!

Global Incorrect Feedback
The correct answer is: $F(x)=\frac{1}{x+1}$.

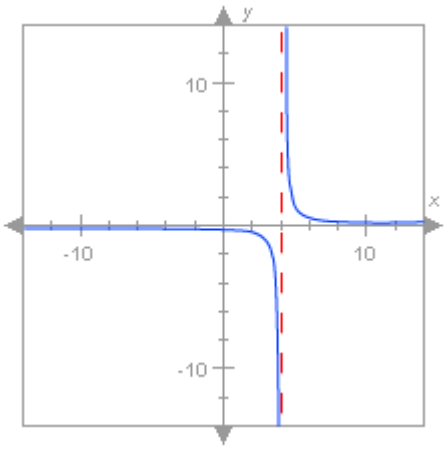
Question 6c of 13 (3 determining the equation of a rational function from its graph 289955)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x)=\frac{1}{4x}$	
B.	$R(x)=\frac{1}{\frac{x}{4}}$	
***C.**	$R(x)=\frac{1}{x-4}$	Correct!
D.	$R(x)=\frac{1}{x+4}$	

Global Incorrect Feedback
The correct answer is: $R(x)=\frac{1}{x-4}$.

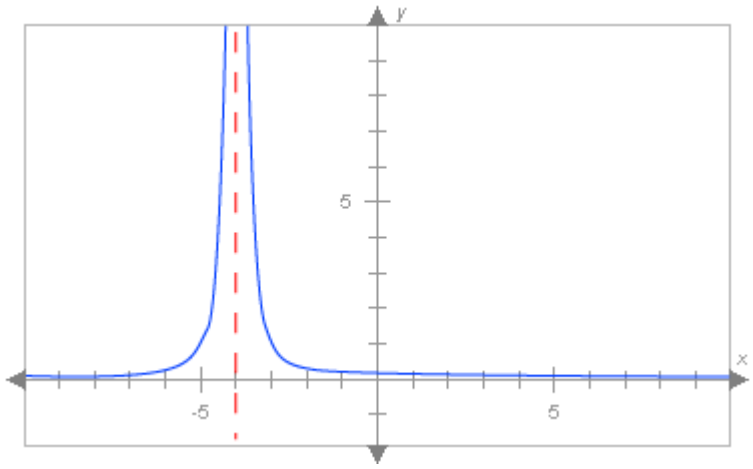
Question 7a of 13 (3 determining the equation of a rational function from its graph 91981)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{1}{4x^2}$	
B.	$F(x) = \frac{4}{x^2}$	
C.	$F(x) = \frac{1}{(x-4)^2}$	
***D.**	$F(x) = \frac{1}{(x+4)^2}$	Correct!

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x+4)^2}$.

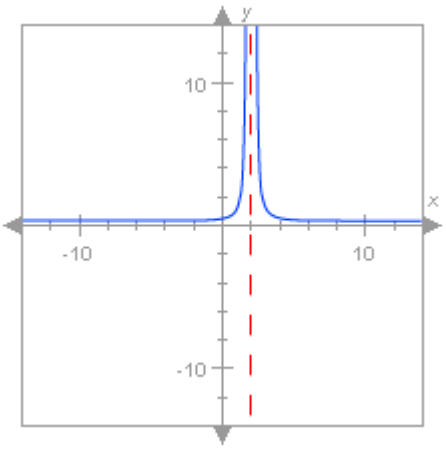
Question 7b of 13 (3 determining the equation of a rational function from its graph 289956)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$f(x)=\frac{-1}{x^2}$	
***B.**	$f(x)=\frac{1}{(x-2)^2}$	Correct!
C.	$f(x)=\frac{1}{2x^2}$	
D.	$f(x)=-\frac{2}{x^2}$	

Global Incorrect Feedback
The correct answer is: $f(x)=\frac{1}{(x-2)^2}$.

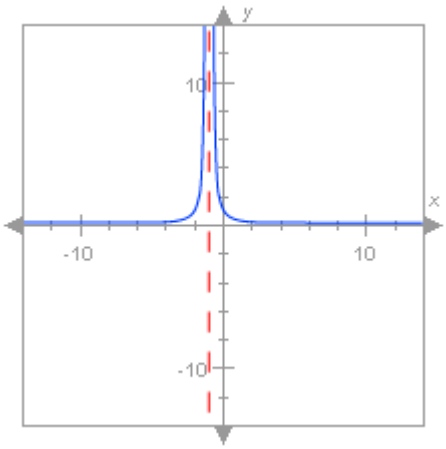
Question 7c of 13 (3 determining the equation of a rational function from its graph 289957)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
*A.	$f(x)=\frac{1}{(x+1)^2}$	Correct!
B.	$f(x)=\frac{1}{x^2+1}$	
C.	$f(x)=\frac{1}{(x-1)^2}$	
D.	$f(x)=-\frac{1}{x^2}$	

Global Incorrect Feedback
The correct answer is: $f(x)=\frac{1}{(x+1)^2}$.

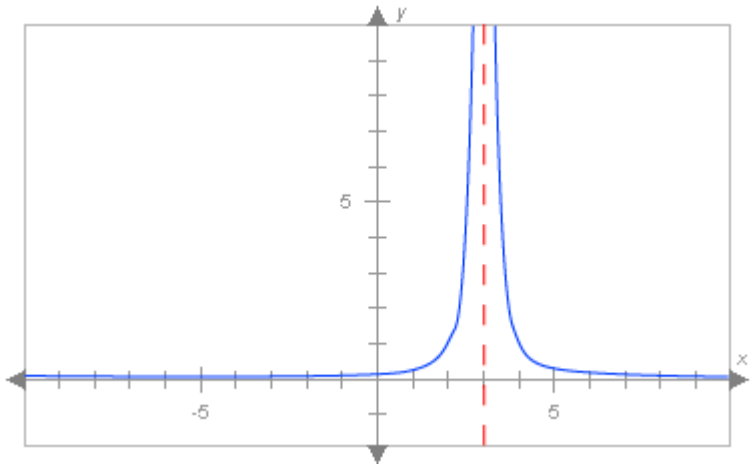
Question 8a of 13 (3 determining the equation of a rational function from its graph 91982)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x) = \frac{1}{3x^2}$	
B.	$F(x) = \frac{3}{x^2}$	
***C.**	$F(x) = \frac{1}{(x-3)^2}$	Correct!
D.	$F(x) = \frac{1}{(x+3)^2}$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{(x-3)^2}$.

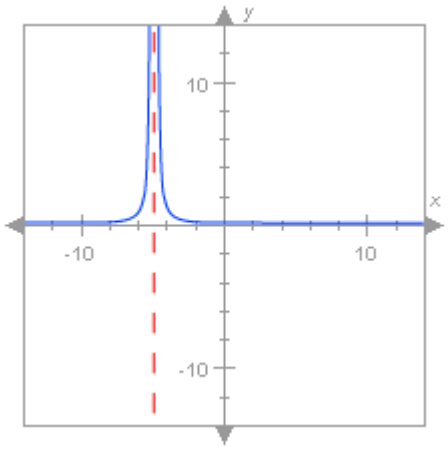
Question 8b of 13 (3 determining the equation of a rational function from its graph 289958)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
A.	$F(x)=-\frac{1}{5x^2}$	
***B.**	$F(x)=\frac{1}{(x+5)^2}$	Correct!
C.	$F(x)=\frac{1}{-5x^2}$	
D.	$F(x)=\frac{1}{(x-5)^2}$	

Global Incorrect Feedback
The correct answer is: $F(x)=\frac{1}{(x+5)^2}$.

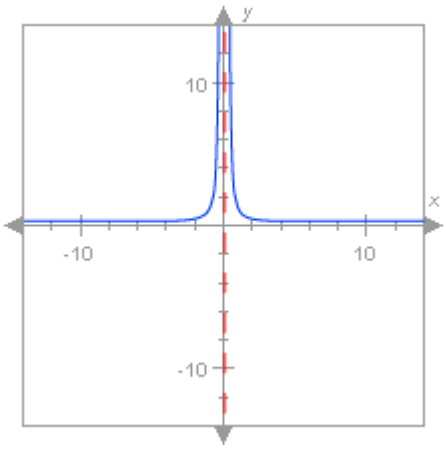
Question 8c of 13 (3 determining the equation of a rational function from its graph 289959)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: The graph shown here is the graph of which rational function?



	Choice	Feedback
*A.	$F(x) = \frac{1}{x^2}$	Correct!
B.	$F(x) = \frac{1}{(x+1)^2}$	
C.	$F(x) = \frac{1}{(x-1)^2}$	
D.	$F(x) = \frac{1}{x^2}x$	

Global Incorrect Feedback
The correct answer is: $F(x) = \frac{1}{x^2}$.

Question 9a of 13 (2 understanding the behavior of a rational function near a vertical asymptote 91983)

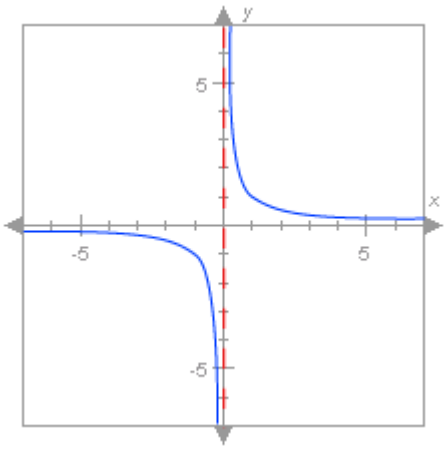
Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

For the function $F(x) = \frac{1}{x}$ whose graph is shown below, what is the relative value of $F(x)$ when the value of x is close to zero?



	Choice	Feedback
A.	Either a very small positive or very small negative number	
B.	A very small positive number	
C.	Only a very large positive number	
***D.**	Either a very large positive or very large negative number	Correct!
E.	Only a very large negative number	

Global Incorrect Feedback
The correct answer is: Either a very large positive or very large negative number.

Question 9b of 13 (2 understanding the behavior of a rational function near a vertical asymptote 289960)

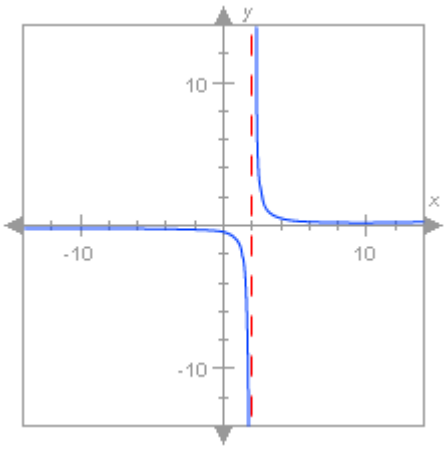
Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

For the function $F(x) = \frac{1}{x-2}$ whose graph is shown below, what is the relative value of $F(x)$ when the value of x is close to 2?



	Choice	Feedback
*A.	Either a very large positive or very large negative number	Correct!
B.	A very large positive number	
C.	Only a very small positive number	
D.	Either a very small positive or very small negative number	
E.	Only a very large negative number	

Global Incorrect Feedback
The correct answer is: Either a very large positive or very large negative number.

Question 9c of 13 (2 understanding the behavior of a rational function near a vertical asymptote 289961)

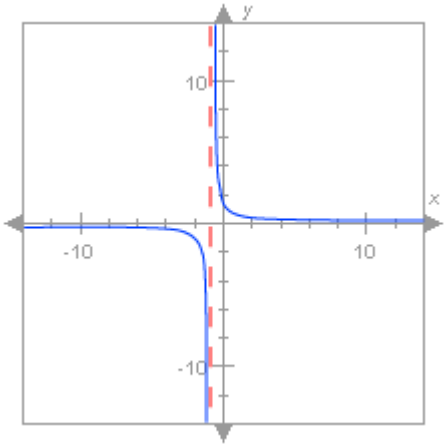
Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question:

For the function $F(x) = \frac{1}{x+1}$ whose graph is shown below, what is the relative value of $F(x)$ when the value of x is close to -1?



	Choice	Feedback
A.	Either a very small positive or very small negative number	
B.	Only a very positive number	
C.	Only a very large negative number	
***D.**	Either a very large positive or very large negative number	Correct!
E.	Either zero or a very large positive number	

Global Incorrect Feedback
The correct answer is: Either a very large positive or very large negative number.

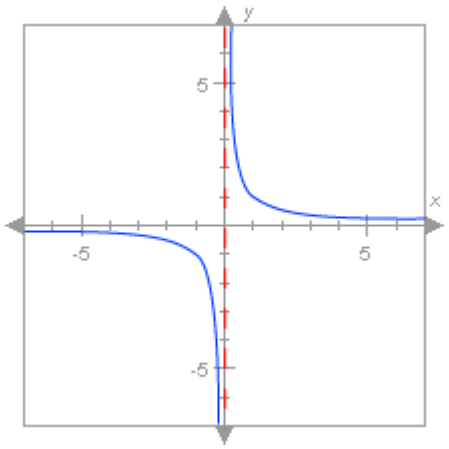
Question 10a of 13 (2 understanding the behavior of a rational function near a vertical asymptote 91984)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Given the graph of the function $F(x)$ below, what happens to $F(x)$ when x is a very small negative number?



	Choice	Feedback
A.	$F(x)$ is a very small negative number.	
***B.**	$F(x)$ is a very large negative number.	Correct!
C.	$F(x)$ is a very large positive number.	
D.	$F(x)$ is a very small positive number.	

Global Incorrect Feedback
The correct answer is: $F(x)$ is a very large negative number.

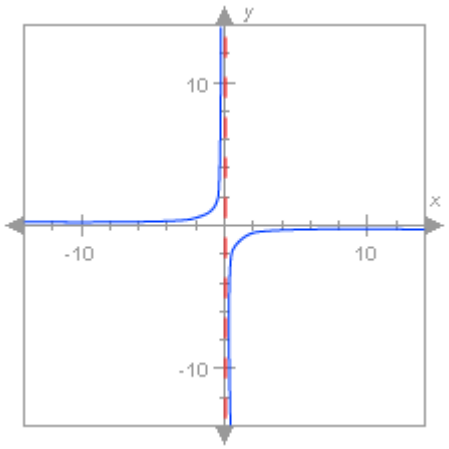
Question 10b of 13 (2 understanding the behavior of a rational function near a vertical asymptote 289962)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Given the graph of the function $F(x)$ below, what happens to $F(x)$ when x is a very small negative number?



	Choice	Feedback
A.	$F(x)$ is a very small negative number.	
B.	$F(x)$ is a very large negative number.	
***C.**	$F(x)$ is a very large positive number.	Correct!
D.	$F(x)$ is a very small positive number.	

Global Incorrect Feedback
The correct answer is: $F(x)$ is a very large positive number.

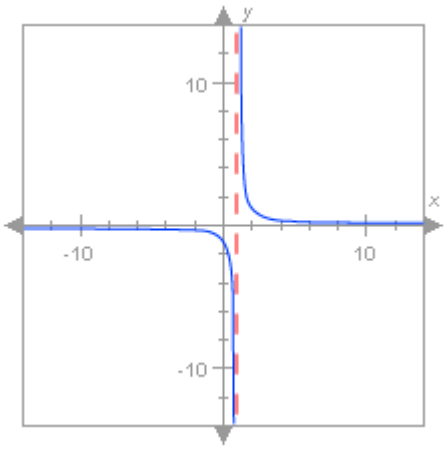
Question 10c of 13 (2 understanding the behavior of a rational function near a vertical asymptote 289963)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Given the graph of the function $F(x)$ below, what happens to $F(x)$ when x is number between 0 and 1?



	Choice	Feedback
A.	$F(x)$ is a very small negative number.	
***B.**	$F(x)$ is a very large negative number.	Correct!
C.	$F(x)$ is a very large positive number.	
D.	$F(x)$ is a very small positive number.	

Global Incorrect Feedback
The correct answer is: $F(x)$ is a very large negative number.

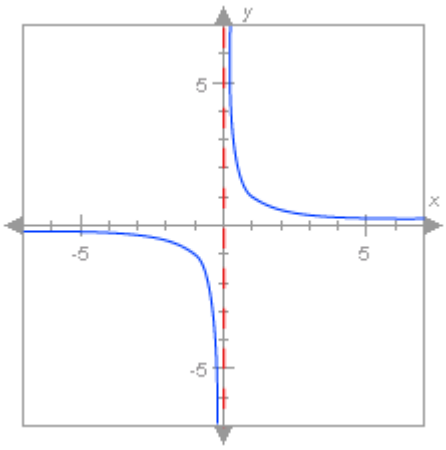
Question 11a of 13 (2 understanding the behavior of a rational function near a vertical asymptote 91985)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Given the graph of the function $F(x)$ below, what happens to $F(x)$ when x is a very small positive number?



	Choice	Feedback
A.	$F(x)$ is a very small negative number.	
B.	$F(x)$ is a very large negative number.	
***C.**	$F(x)$ is a very large positive number.	Correct!
D.	$F(x)$ is a very small positive number.	

Global Incorrect Feedback
The correct answer is: $F(x)$ is a very large positive number.

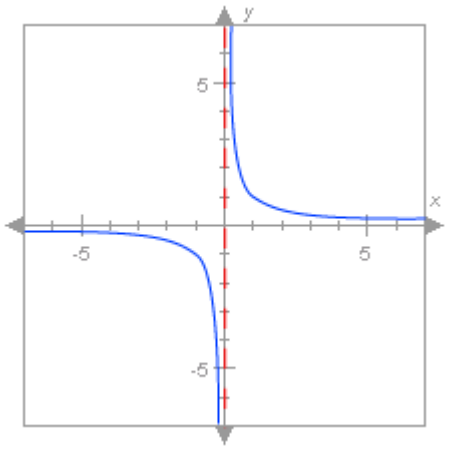
Question 11b of 13 (2 understanding the behavior of a rational function near a vertical asymptote 289964)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Given the graph of the function $F(x)$ below, what happens to $F(x)$ when x is a very large positive number?



	Choice	Feedback
A.	$F(x)$ is a very small negative number.	
B.	$F(x)$ is a very large negative number.	
C.	$F(x)$ is a very large positive number.	
***D.**	$F(x)$ is a very small positive number.	Correct!

Global Incorrect Feedback
The correct answer is: $F(x)$ is a very small positive number.

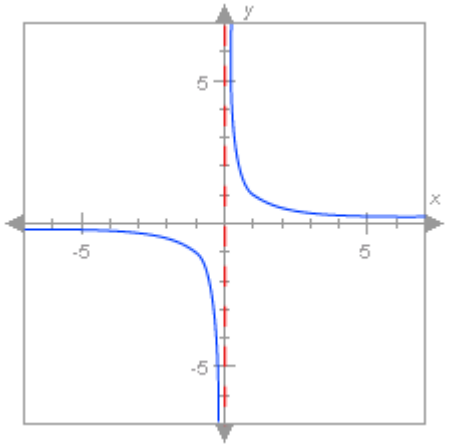
Question 11c of 13 (2 understanding the behavior of a rational function near a vertical asymptote 289965)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Given the graph of the function $F(x)$ below, what happens to $F(x)$ when x is a very large negative number?



	Choice	Feedback
*A.	$F(x)$ is a very small negative number.	Correct!
B.	$F(x)$ is a very large negative number.	
C.	$F(x)$ is a very large positive number.	
D.	$F(x)$ is a very small positive number.	

Global Incorrect Feedback
The correct answer is: $F(x)$ is a very small negative number.

Question 12a of 13 (1 understanding vertical asymptotes 91986)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which pair of terms correctly completes the following sentence?

A function has *vertical asymptotes* at x-values for which it is _____ and near which the function's values become very _____ positive or negative numbers.

	Choice	Feedback
*A.	undefined; large	Correct!
B.	undefined; small	
C.	defined; large	
D.	defined; small	

Global Incorrect Feedback
The correct answer is: undefined; large.

Question 12b of 13 (1 understanding vertical asymptotes 289966)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which term correctly completes the following sentence?

Near a function's vertical asymptotes, its values become very _____ positive or negative numbers.

	Choice	Feedback
A.	small	
*B.	large	correct!

C.	undefined	
D.	rational	

Global Incorrect Feedback
The correct answer is: large.

Question 12c of 13 (1 understanding vertical asymptotes 289967)

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 2

Question: Which term correctly completes the following sentence?

If a function has a vertical asymptote at a certain x-value, then the function is _____ at that value.

	Choice	**Feedback**
A.	negative	
B.	rational	
C.	zero	
***D.**	undefined	Correct!

Global Incorrect Feedback
The correct answer is: undefined.

Question 13a of 13 (2 understanding vertical asymptotes 91987)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: By checking the values for a function on only one side of its asymptote, you can know for sure how the graph should look.

	Choice	**Feedback**
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.

Question 13b of 13 (2 understanding vertical asymptotes 289968)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: To get a good idea of how its graph should look, you should always check a function's values on both sides of its asymptote.

	Choice	Feedback
***A.**	True	Correct!
B.	False	

Global Incorrect Feedback
The correct answer is: True.

Question 13c of 13 (2 understanding vertical asymptotes 289969)

Maximum Attempts: 1

Question Type: True-False

Maximum Score: 2

Question: To get a good idea of how its graph should look, you should check the value of a function on its asymptote.

	Choice	Feedback
A.	True	
***B.**	False	Correct!

Global Incorrect Feedback
The correct answer is: False.
