

## 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.

$$\frac{24}{33}$$

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.

Attempt	Incorrect Feedback
1st	
	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 2/7.

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### 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	
	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 1/4.

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### 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.

Attempt	Incorrect Feedback
1st	
	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 1/6.

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### 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.

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

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: .

### 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  $x = 2$  or  $-4$ ?

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

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  $-10$ ?

	Choice	Feedback
<b>*A.</b>	$\frac{x+5}{x+10}$	Correct!
<b>B.</b>	$\frac{x+5}{x-3}$	
<b>C.</b>	$\frac{x-3}{x+10}$	
<b>D.</b>	$\frac{x-3}{x+5}$	

Global Incorrect Feedback
The correct answer is: $\frac{x+7}{x+10}$ .

**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
<b>A.</b>	$\frac{x-7}{x+1}$	
<b>B.</b>	$\frac{x+1}{x-7}$	
<b>C.</b>	$\frac{x+1}{x-7}$	
<b>*D.</b>	$\frac{x-7}{x-7}$	Correct!

Global Incorrect Feedback
The correct answer is: .

**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  $-9$ ?

	Choice	Feedback
<b>*A.</b>	$\frac{x+11}{x+9}$	Correct!
<b>B.</b>	$\frac{x+11}{x-4}$	
<b>C.</b>	$\frac{x-4}{x+9}$	
<b>D.</b>	$\frac{x-4}{x+1}$	

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
<b>A.</b>	$\frac{x+5}{x-5}$	
<b>B.</b>	$x - 5$	
<b>C.</b>	$\frac{1}{x+5}$	
<b>*D.</b>	$x + 5$	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  $x \neq -3$ ?

	Choice	Feedback
<b>A.</b>		
<b>*B.</b>		Correct!
<b>C.</b>		
<b>D.</b>		

**Global Incorrect Feedback**

The correct answer is:  $x - 6$ .

**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.	$\frac{x}{x - 6}$	
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.		
C.		
*D.		Correct!

**Global Incorrect Feedback**

The correct answer is: .

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

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

### 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.		
C.		
D.		

Global Incorrect Feedback
The correct answer is: .



**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.