

Introduction (2A)

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Calculating the Mean of n Numbers

*The mean of **n** numbers*

$$m = \frac{\sum_{i=1}^n x_i}{n}$$

$$m = \frac{\sum_{i=1}^{10} x_i}{n} = \frac{(x_1 + x_2 + x_3 + x_4 + x_5 + x_6 + x_7 + x_8 + x_9 + x_{10})}{10}$$

Array and Memory

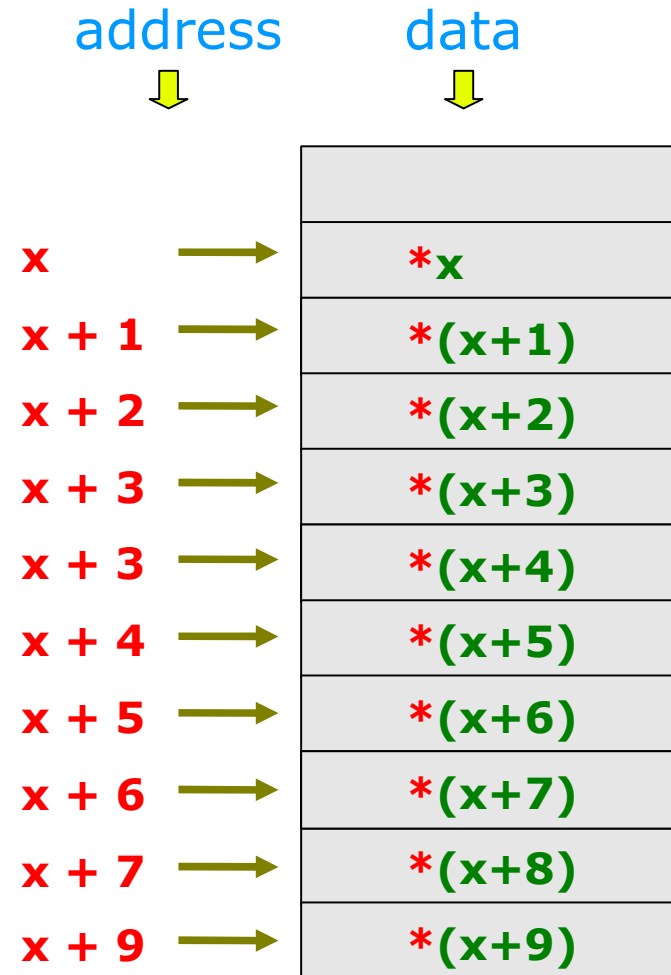
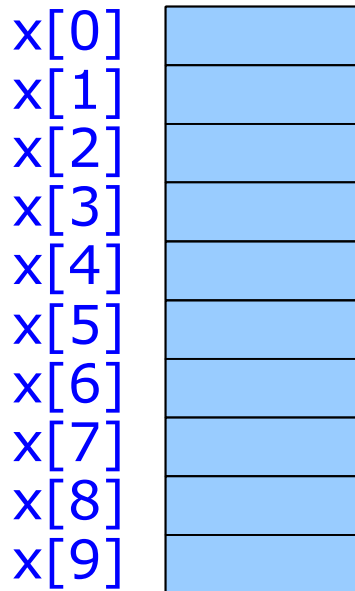
int

`x[10];`

`x` holds *address*

to **10** consecutive **int** variables

10 int variables



Array Example

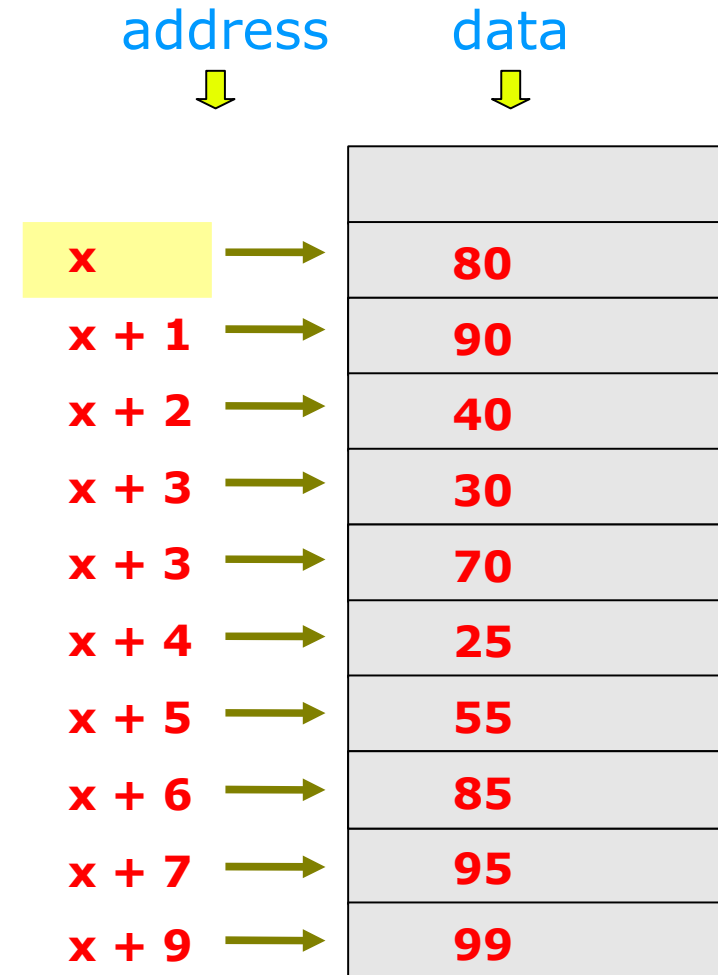
int

`x[10];`
`x` holds *address*
to **10** consecutive **int** variables

10 int variables

<code>x[0] = 80;</code>	80
<code>x[1] = 90;</code>	90
<code>x[2] = 40;</code>	40
<code>x[3] = 30;</code>	30
<code>x[4] = 70;</code>	70
<code>x[5] = 25;</code>	25
<code>x[6] = 55;</code>	55
<code>x[7] = 85;</code>	85
<code>x[8] = 95;</code>	95
<code>x[9] = 99;</code>	99

<code>*(x+0) = 80;</code>
<code>*(x+1) = 90;</code>
<code>*(x+2) = 40;</code>
<code>*(x+3) = 30;</code>
<code>*(x+4) = 70;</code>
<code>*(x+5) = 25;</code>
<code>*(x+6) = 55;</code>
<code>*(x+7) = 85;</code>
<code>*(x+8) = 95;</code>
<code>*(x+9) = 99;</code>



References

- [1] Essential C, Nick Parlante
- [2] Efficient C Programming, Mark A. Weiss
- [3] C A Reference Manual, Samuel P. Harbison & Guy L. Steele Jr.
- [4] C Language Express, I. K. Chun