LO: to substitute

I do

Substitution

In Algebra "Substitution" means putting numbers where the letters are:

When we have:	$x - 2$
And we know that $x=6$ ...	
... then we can "substitute" 6 for x:	$6 - 2 = 4$

I do

$$y = 2x + 3$$

Find y when...

$x = 0$

$x = 1$

$x = 2$

$x = 3$

What is 2x when x is 0? Why?

When does 2x remain the same as x?

$$y = 2x + 3$$

Find y when...

$x = 0$

$x = 1$

$x = 2$

$x = 3$

What is 2x when x is 0? Why?

When does 2x remain the same as x?

Write answers in to your books.

LO: to substitute

you do

Worked Example	Your Turn
$y = 2x + 3$	$y = 3x + 2$
Find y when…	Find y when…
$x = 0$	$x = 0$
$x = 1$	$x = 1$
$x = 2$	$x = 2$
$x = 3$	$x = 3$

I do

For each equation, find the value of y when

x=1 x=2 x=3

$$y= 2x +2$$

x= 1 y=

x=2 y=

x=3 y=

For each equation, find the value of y when

x=1 x=2 x=3

$y= 2x +2$

x= 1 y=

x=2 y=

x=3 y=

$y= 2x -2$

x= 1 y=

x=2 y=

x=3 y=

For each equation, find the value of y when

x=1 x=2 x=3

$y= 2x +2$

x= 1 y=

x=2 y=

x=3 y=

$y= 2x -2$

x= 1 y=

x=2 y=

x=3 y=

$y= 2x +1$

x= 1 y=

x=2 y=

x=3 y=

For each equation, find the value of y when

x=1 x=2 x=3

$y= 2x +2$

x= 1 y=

x=2 y=

x=3 y=

$y= 2x -2$

x= 1 y=

x=2 y=

x=3 y=

$y= 2x +1$

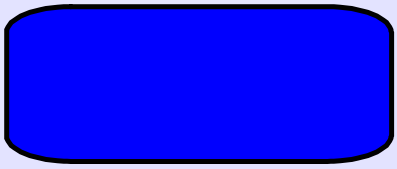
x= 1 y=

x=2 y=

x=3 y=

For each equation, find the value of y when

x=1 x=2 x=3



$y = 2x + 1$

x= 1 y=

x=2 y=

x=3 y=

$y = 2x - 1$

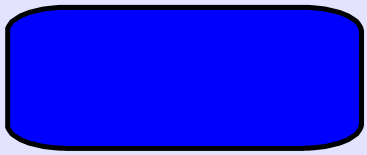
x= 1 y=

x=2 y=

x=3 y=

For each equation, find the value of y when

x=1 x=2 x=3



$y = 2x - 1$

x= 1 y=

x=2 y=

x=3 y=

$y = 3x - 4$

x= 1 y=

x=2 y=

x=3 y=

you do

Intelligent Practice

For each equation, find the value of y when $x = 1$, $x = 2$ and $x = 3$

$y = 2x + 2$	$y = 2x - 1$	$y = 2x - 5$
$y = 2x - 2$	$y = 3x - 4$	$y = 5 - 2x$
$y = 2x + 1$	$y = 3x - 2$	$y = 4 - 3x$

When do the questions change? Why?

Answers

$y = 2x + 2$
$x = 1 \quad y = 4$
$x = 2 \quad y = 6$
$x = 3 \quad y = 8$

$y = 2x - 1$
$x = 1 \quad y = 1$
$x = 2 \quad y = 3$
$x = 3 \quad y = 5$

$y = 2x - 5$
$x = 1 \quad y = -3$
$x = 2 \quad y = -1$
$x = 3 \quad y = 1$

$y = 2x - 2$
$x = 1 \quad y = 0$
$x = 2 \quad y = 2$
$x = 3 \quad y = 4$

$y = 3x - 4$
$x = 1 \quad y = -1$
$x = 2 \quad y = 2$
$x = 3 \quad y = 5$

$y = 5 - 2x$
$x = 1 \quad y = 3$
$x = 2 \quad y = 1$
$x = 3 \quad y = -1$

$y = 2x + 1$
$x = 1 \quad y = 3$
$x = 2 \quad y = 5$
$x = 3 \quad y = 7$

$y = 3x - 2$
$x = 1 \quad y = 1$
$x = 2 \quad y = 4$
$x = 3 \quad y = 7$

$y = 4 - 3x$
$x = 1 \quad y = 1$
$x = 2 \quad y = -2$
$x = 3 \quad y = -5$

Attachments

Factor Bugs.pptx