Math Warm Up

Wednesday	My Thinking	Correct/Compare
Which step is the first incorrect step in the solution shown below?		
Solve: $2(x + 2) = 6x - 12$		
Step 1: $2x + 4 = 6x - 12$		
Step 2: $-4x - 2 = 12$ Step 3: $-4x = 10$		
Step 4: $x = -2.5$		
A) Step 1		
B) Step 2		
c) Step 3		
D) Step 4		

W	ednesday	My Thinking	Correct/Compare
3)	Which step is the first incorrect step in the solution shown below?		
_	Solve: $2(x + 2) = 6x - 12$		
_	Step 1: $2x + 4 = 6x - 12$ Step 2: $-4x - 2 = 12$		
	Step 3: $-4x = 10$ Step 4: $x = -2.5$		
	A) Step 1		
_	✓ B) Step 2		
_	c) Step 3		
	D) Step 4		

Objective

TSW

 represent a relationship between two variables by creating a table of values.



Linear equations
can be used to solve
mathematical and realworld problems. A linear
equation with one variable
can have one solution, no
solution, or infinitely many
solutions.

Common Core State Standards 8EE 5 Compare two different proportional relationships represented in different ways.

Mathematical Practices 1 Solve problems/persevere 2 Reason 4 Model Mathematics 7 Look for and use structure

Guided Practice

Example 8 Write tables of values for linear equations with two variables.

Solve. Show your work.

a) Create a table of x- and y-values for the equation $\frac{y}{2} = \frac{3}{2}x + 2$. Use integer values of x from -1 to 1.

Math Note

Remember to substitute 0 as one of the integers.

Example 8 Write tables of values for linear equations with two variables.

Solution

Substitute -1 for x into the equation:

$$\frac{y}{2} = \frac{3}{2}(-1) + 2$$

$$\frac{y}{2} = \frac{1}{2}$$

Simplify.

$$\frac{y}{2} \cdot \mathbf{2} = \frac{1}{2} \cdot \mathbf{2}$$

y = 1

Multiply both sides by 2.

Substitute 0 for x into the equation:

$$\frac{y}{2} = \frac{3}{2}(0) + 2$$

$$\frac{y}{2} = 2$$

Simplify.

$$\frac{y}{2} \cdot \mathbf{2} = 2 \cdot \mathbf{2}$$

Multiply both sides by 2.

$$y = 4$$

Simplify.

Substitute 1 for x into the equation:

$$\frac{y}{2} = \frac{3}{2}(1) + 2$$

$$\frac{y}{2} = \frac{7}{2}$$

Simplify.

$$\frac{y}{2} \cdot \mathbf{2} = \frac{7}{2} \cdot \mathbf{2}$$

Multiply both sides by 2.

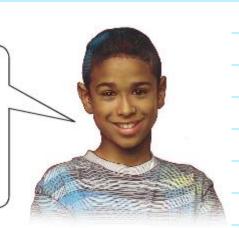
$$y = 7$$

Simplify.

So the table of values is:

х	-1	0	1
у	1	4	7

When solving a linear equation in two variables, you know that each x-value has a corresponding y-value. So every equation has an infinite number of solutions. One way to represent some of these solutions is with a table of values.



Guided Practice

Example 8 Write tables of values for linear equations with two variables.

b) Complete the table of values for the equation 8y = 5(x - 4).

х	2	?	6
У	?	0	?

Guided Practice

Example 8

Write tables of values for linear equations with two variables.

Solution

Substitute 2 for x into the equation:

$$8y = 5(2 - 4)$$

$$8y = -10$$

 $8v \div 8 = -10 \div 8$

$$y = -1.25$$

Simplify.

Divide both sides by 8.

Simplify.

Substitute 0 for y into the equation:

$$0 = 5(x - 4)$$

$$0 \div 5 = 5(x - 4) \div 5$$

$$0 = x - 4$$

$$-0 + 4 = x - 4 + 4$$

$$4 = x$$

Divide both sides by 5.

Add 4 to both sides.

Simplify.

Substitute 6 for x into the equation:

$$8y = 5(6 - 4)$$

$$8y = 10$$

$$8y \div 8 = 10 \div 8$$

$$y = 1.25$$

Simplify.

Divide both sides by 8.

Simplify.

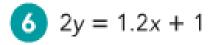
So the table of values is:

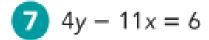
х	2	4	6
у	-1.25	0	1.25

Your Turn

Guided Practice

Create a table of x- and y-values for each equation. Use integer values of x from 1 to 3.





2 minute Commercial Break



Decide...

Partner Wal-Mart

Partner Target

2 minute Commercial Break



Decide...

Partner Wal-Mart

- *Explain Thinking for
- Number 6
- *Write Table of Values
- for Partner's Thinking
- Number 7 on

Whiteboard

Partner McDonald

- *Explain thinking for
- Number 7
- *Write Table of Values
- of Partners Thinking
- Number 6 on
- Whiteboard

Your Turn

Guided Practice

Create a table of x- and y-values for each equation. Use integer values of x from 1 to 3.

6
$$2y = 1.2x + 1$$

$$\sqrt{2}$$
 4y - 11x = 6

)	х	1	2	3
	у	1.1	1.7	2.3

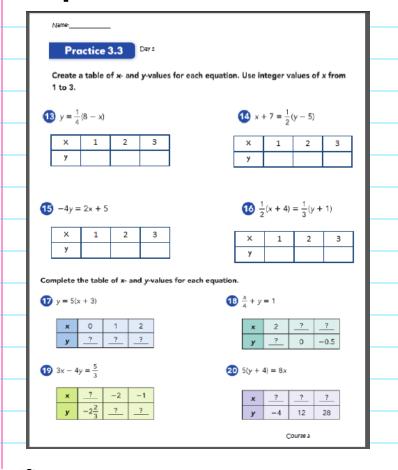
0	х	1	2	3
_	у	4.25	7	9.75

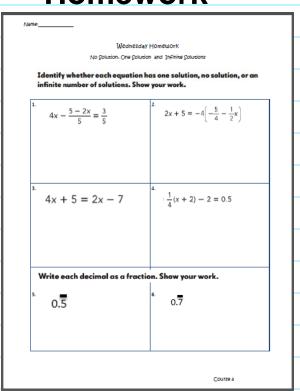
Independent Practice #13-20

Challenge #24

IXL- Multiple Choice Game 360 Degree Math

Homework





Lesson Check —#13 Create Table of Values