

Warm Up

3/5

Check your homework with your group.
What questions do you have?



IXL has changed its look!

When looking for your assignments from a teacher, the link is now in the header.



The screenshot shows the IXL interface with a header containing navigation links: Recommendations, All skills, From your teacher (circled in red), and Skill plans. Below the header is a 'From the diagnostic' section with three problem cards.

Card 1: Linear Function
Read the following description of a relationship:
The odometer in Jacob's new car already read 12 kilometers when he started driving it.
Let x represent the number of kilometers Jacob has driven the car and y represent the number of kilometers on the odometer.
Complete the table using the function $y = x + 12$.

x	y
2	<input type="text"/>
4	16
6	<input type="text"/>
8	<input type="text"/>

Complete a table for a linear function (98) 8th grade
Go for gold
Reached Challenge Zone on February 6

For Exercises 9–14, write the equation in $y = mx + b$ form.

9. $4x + 6y + 12 = 0$

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

10. $-7x + 9y + 4 = 0$

$$y = \frac{7}{9}x - \frac{4}{9}$$

11. $-4x - 2y - 6 = 0$

$$y = -2x - 3$$

12. $-x + 4y = 0$

$$y = \frac{1}{4}x$$

13. $2x - 2y + 2 = 0$

$$\begin{array}{r} -2x \quad -2x \\ \hline -2y + 2 = -2x \\ \hline -2 = 2 \\ \hline -2y = -2x - 2 \\ \hline \div -2 \\ \hline y = x + 1 \end{array}$$

14. $25x + 5y - 15 = 0$

$$y = -5x + 3$$

15. A sixth-grade class sells pennants and flags. They earn \$1 profit for each pennant sold and \$6 profit for each flag sold. They sell 50 items in total for a profit of \$115.

a. Write two equations that represent the relationship between the number of pennants sold p and the number of flags sold f .

b. How many pennants and how many flags were sold?

Let x = # of pennants

Let y = # of flags

Totals

$$\begin{cases} 50 = x + y \\ 115 = x + 6y \end{cases}$$

Isolate x :

$$50 = x + y$$

$$x = 50 - y$$

$$115 = x + 6y$$

$$x = 115 - 6y$$

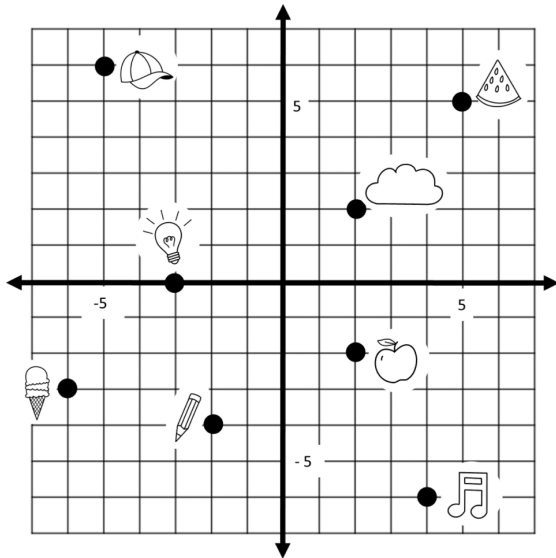
$$50 - y = 115 - 6y$$

- 16.** A seventh-grade class sells mouse pads and cell phone cases with their school logo on them. The class earns \$2 profit for each mouse pad sold and \$4 profit for each cell phone case sold. They sell 100 items in total for a profit of \$268.
- Write two equations that represent the relationship between the number of mouse pads sold m and the number of cell phone cases sold c .
 - How many mouse pads and how many cell phone cases were sold?

Solving Systems of Equations by Graphing

name _____

Solve each system of equations given in the table to the right by graphing. Once you find the solution to the system, draw its matching picture in the second column of the table to make checking your answers easy. Not all pictures will be used.



1. $y = 2x - 2$ $y = -\frac{1}{2}x + 3$	
2. $y = \frac{7}{5}x - 2$ $y = \frac{4}{5}x + 1$	
3. $y - x = 3$ $y = 2x + 6$	
4. $3x - y = -2$ $x - 2y = 6$	
5. $2x + y = 2$ $x - y = 4$	

Homework

Finish classwork