

Using Graphs to Solve Problems: Classwork

1. Hanna wants to buy a new television. She already has some money saved up, and is adding a certain amount to it each week.

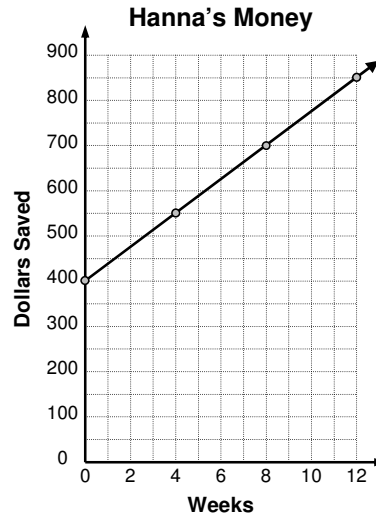
a. Write an equation for the amount of money saved m after any number of weeks w .

b. i. Use the graph to estimate how much money she will have at week 7. Show your work.

ii. Use your equation to calculate exactly how much money she will have at week 7. Show your work.

c. i. The TV she wants costs \$721.43. Use the graph to estimate how many weeks it will take her to have that much money. Show your work.

ii. Use your equation to calculate how many weeks it will take her to have \$721.43. Show your algebra work.

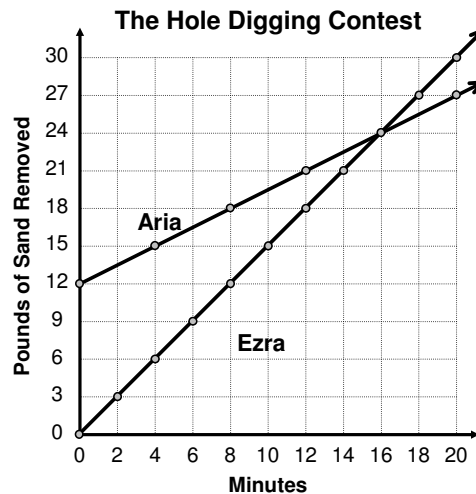


2. Two friends are at the beach trying to see who can dig a bigger hole. Aria is a slower digger, so she gets to start with a pre-dug hole!

a. For each person, write an equation that shows the pounds of sand removed (s) after any number of minutes (m).

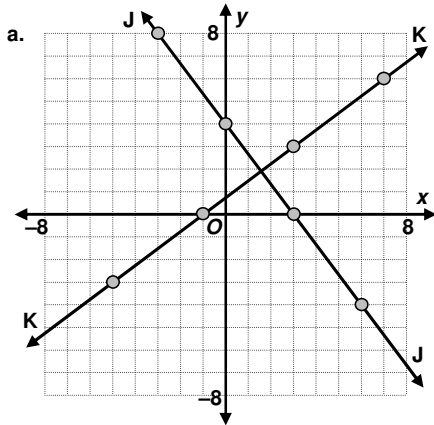
b. i. How long until Aria has 20 pounds of sand removed? Use your graph to estimate the answer. Show your work.

ii. Use your equation to calculate how long until Aria has 20 pounds of sand removed. Show your algebra work.



3. You can use graphs to solve problems as well as equations to solve problems.
- What are the benefits of using a graph to solve a problem instead of an equation? Explain.
 - What are the benefits of using an equation to solve a problem instead of a graph? Explain.

4. For each graph, complete a table and then write an equation. Show your work.

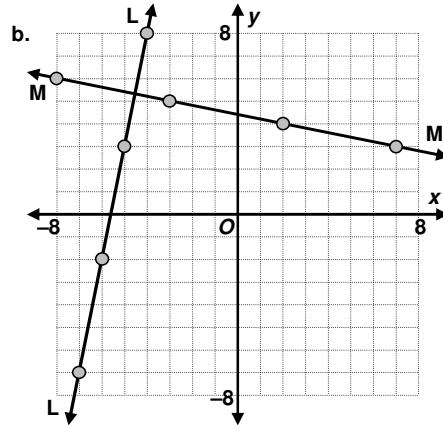


Graph J

x	y
-3	
0	
3	
6	

Graph K

x	y
-5	
-1	
3	
7	



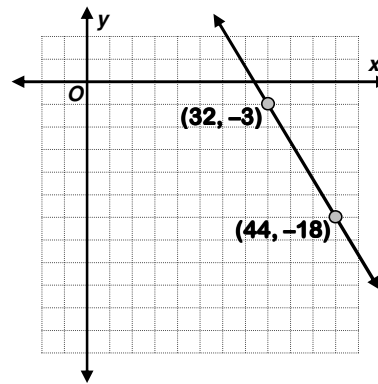
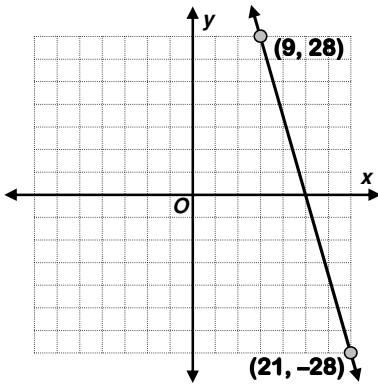
Graph L

x	y
-7	
-6	
-5	
-4	

Graph M

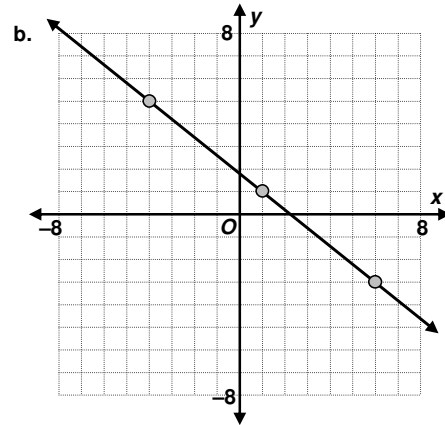
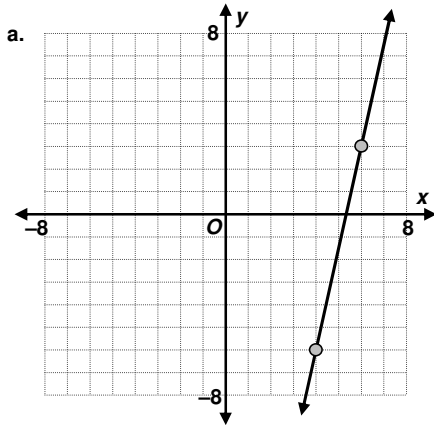
x	y
-8	
-3	
2	
7	

5. Write an equation for each of the graphs. Show your work.



Using Graphs to Solve Problems: Homework

6. Write an equation for each line. Show your work.

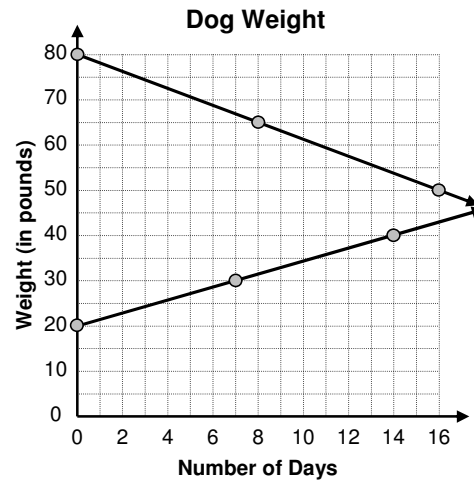


7. Spencer and Emily each have pet dogs. Spencer's dog is on a diet and losing weight each day. Emily's dog is getting fatter each day!

- a. For each person's dog, write an equation that shows the weight w after any number of days d .

Spencer's Dog:

Emily's Dog:



- b. About how many days until Spencer's dog weighs 58 pounds?
Use your graph to estimate the answer. Show your work on the graph.
- c. About how many days until Emily's dog weighs 32.9 pounds?
Use your graph to estimate the answer. Show your work on the graph.