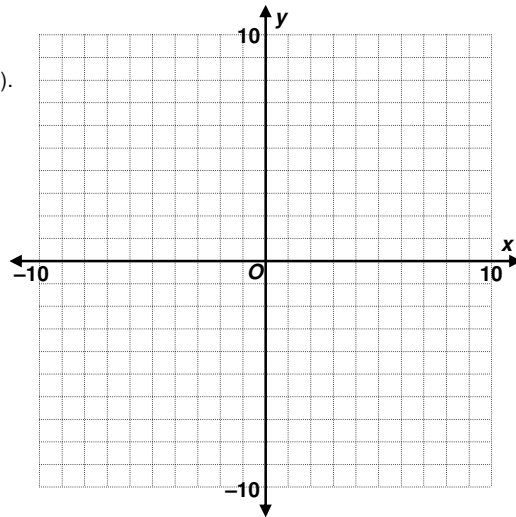
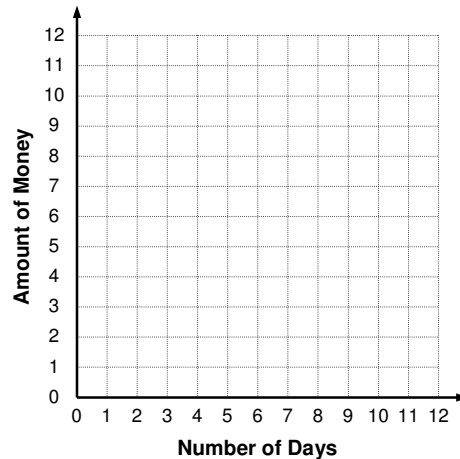


## Two Points: Classwork

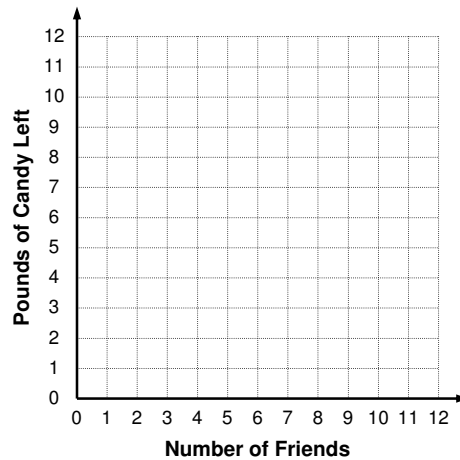
1. A line goes through the points  $(4, 5)$  and  $(-4, -1)$ .
  - a. Plot the points on the coordinate grid and use a straight edge to draw a line through them.
  - b. Find the slope (as a reduced fraction).
  - c. Use the slope to plot the pattern of the points on the line.
  - d. Write an equation for the line.



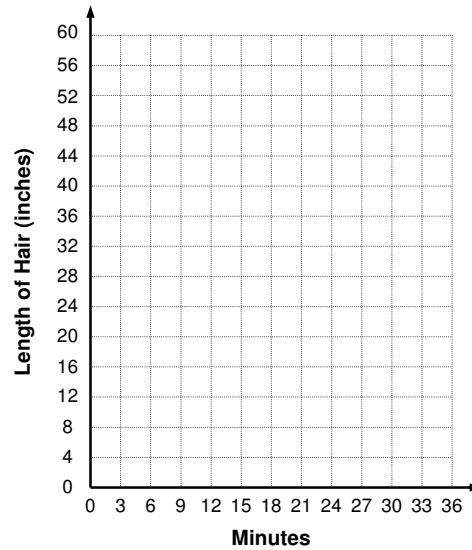
2. CeCe has some money in her piggy bank. Each day, she adds a certain amount to the piggy bank. On Day 4, she has a total of \$6. On Day 10, she has a total of \$9.
  - a. Plot the points on the graph, and use a straight edge to draw a line. Title the graph.
  - b. What is the slope and what does it mean in the context of the story?
  - c. What is the  $y$ -intercept and what does it mean in the context of the story?
  - d. Write an equation for the situation.



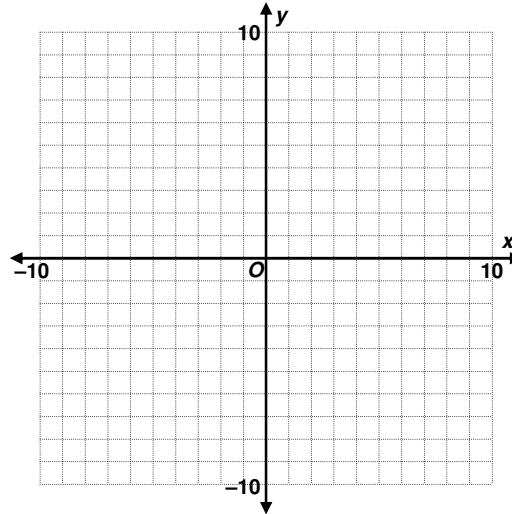
3. Rocky has a bag of candy that she plans to share with her friends. She plans to give each of her friends an equal amount. If she shares with 6 friends, she will have 10 pounds of candy left. If she shares with 12 friends, she will have 6 pounds of candy left.
  - a. Plot the points on the graph, and use a straight edge to draw a line. Title the graph.
  - b. What is the slope and what does it mean in the context of the story?
  - c. What is the  $y$ -intercept and what does it mean in the context of the story?
  - d. Write an equation for the situation.



4. Tinka is getting a hair cut. The barber cuts a certain length of her hair each minute. After 9 minutes, her hair is 40 inches long. After 27 minutes, her hair is 8 inches long.
- Plot the points on the graph, and use a straight edge to draw a line. Title the graph.
  - What is the slope and what does it mean in the context of the story?
  - What is the  $y$ -intercept and what does it mean in the context of the story?
  - Write an equation for the situation.



5. a. Graph the line that goes through the points  $(4, 5)$  and  $(0, 2)$ .
- b. Write an equation for the line. Show your work on the graph.
- c. Explain how you could use the  $y$  coordinates of the points to determine the slope's rise.
- d. Explain how you could use the  $x$  coordinates of the points to determine the slope's run.
- e. Explain how you could use the coordinates to determine the  $y$ -intercept.

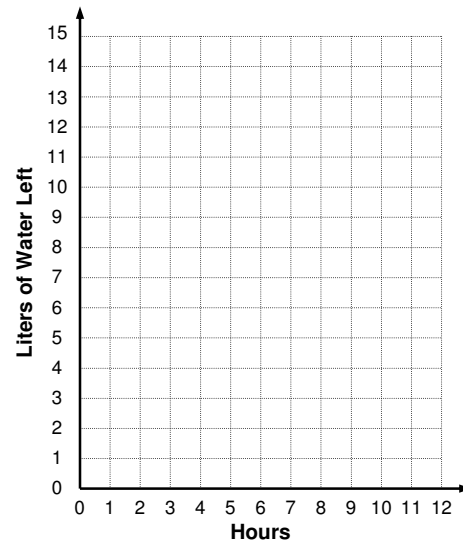


6. Write an equation for the line that goes through each pair of points. Use what you learned in #5 to find the slope without plotting the points on a coordinate grid. Show your work.
- $(0, 6)$  and  $(3, 11)$
  - $(0, -11)$  and  $(4, -5)$
  - $(-9, 4)$  and  $(0, -8)$
  - $(7, -12)$  and  $(0, -12)$

## Two Points: Homework

7. Flynn's office just got a new water cooler. He notices that each hour, the water decreases by the same amount. After 9 hours, there are 7 liters left. After 12 hours, there are only 3 liters left.

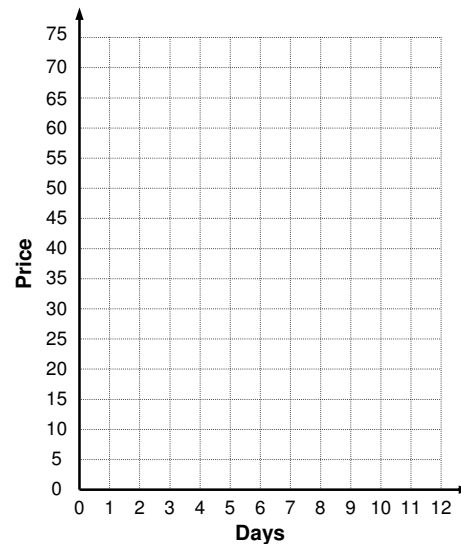
- Plot the points on the graph, and use a straight edge to draw a line. Title the graph.
- What is the slope and what does it mean in the context of the story?
- What is the  $y$ -intercept and what does it mean in the context of the story?



- Write an equation for the situation.

8. Gunther is auctioning off some shoes on Ebay. He sets a starting price, and notices that the bidding increases by the same amount each day! On day 4, the bidding is at \$30. On day 12, the bidding is at \$60.

- Plot the points on the graph, and use a straight edge to draw a line. Title the graph.
- What is the slope and what does it mean in the context of the story?
- What is the  $y$ -intercept and what does it mean in the context of the story?



- Write an equation for the situation.