

## Lesson 13 Practice Problems

1. For each equation, find  $y$  when  $x = -3$ . Then find  $x$  when  $y = 2$

a.  $y = 6x + 8$

b.  $y = \frac{2}{3}x$

c.  $y = -x + 5$

d.  $y = \frac{3}{4}x - 2\frac{1}{2}$

e.  $y = 1.5x + 11$

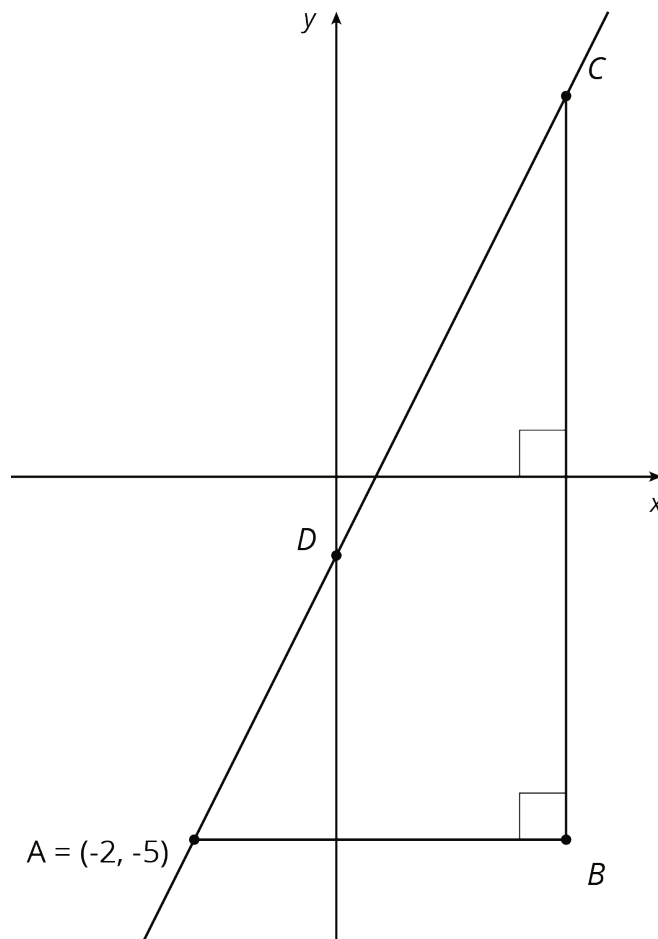
2. True or false: The points  $(6, 13)$ ,  $(21, 33)$ , and  $(99, 137)$  all lie on the same line. The equation of the line is  $y = \frac{4}{3}x + 5$ . Explain or show your reasoning.

3. Here is a linear equation:  $y = \frac{1}{4}x + \frac{5}{4}$

a. Are  $(1, 1.5)$  and  $(12, 4)$  solutions to the equation? Explain or show your reasoning.

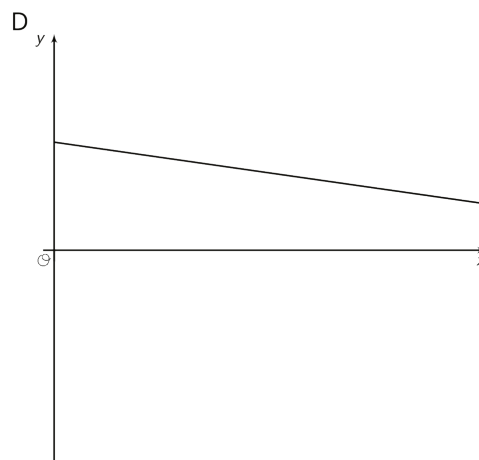
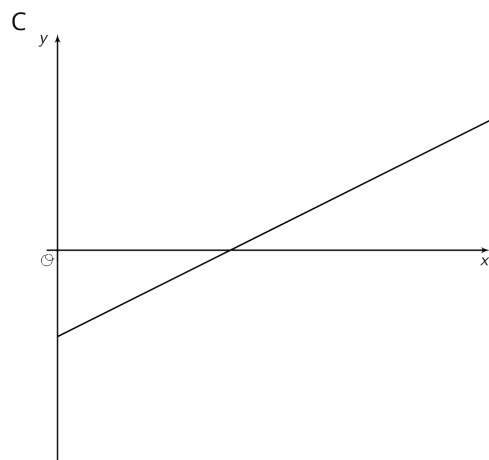
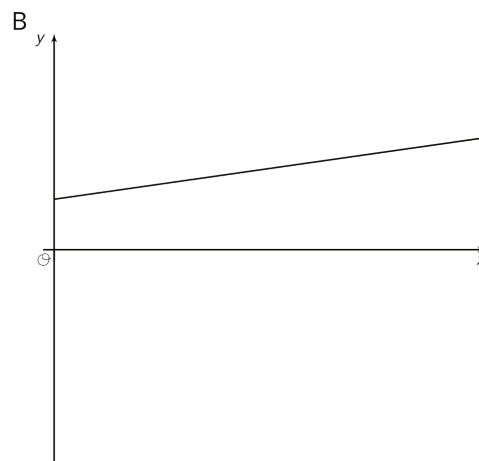
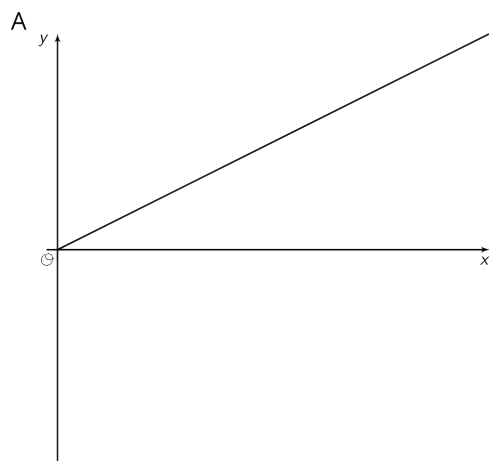
b. Find the  $x$ -intercept of the graph of the equation. Explain or show your reasoning.

4. Find the coordinates of  $B$ ,  $C$ , and  $D$  given that  $AB = 5$  and  $BC = 10$ .



(From Unit 2, Lesson 11.)

5. Match each graph of a linear relationship to a situation that most reasonably reflects its context.



- A. Graph A
- B. Graph B
- C. Graph C
- D. Graph D

1.  $y$  is the weight of a kitten  $x$  days after birth.
2.  $y$  is the distance left to go in a car ride after  $x$  hours of driving at a constant rate toward its destination.
3.  $y$  is the temperature, in degrees C, of a gas being warmed in a laboratory experiment.
4.  $y$  is the amount of calories consumed eating  $x$  crackers.

(From Unit 3, Lesson 9.)