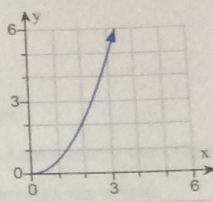
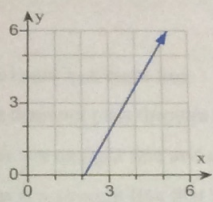
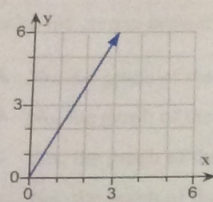


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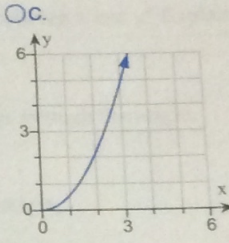
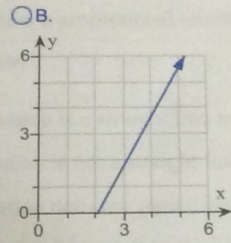
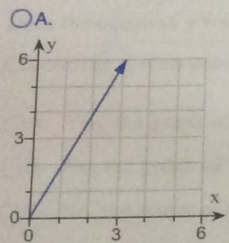
Instructor: Bethany Mampre
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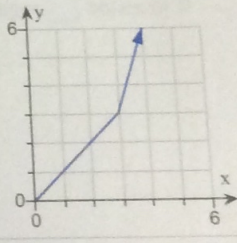
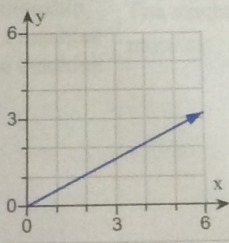
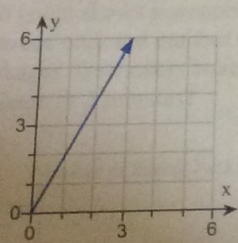
1. Which of the following graphs shows a proportional relationship?



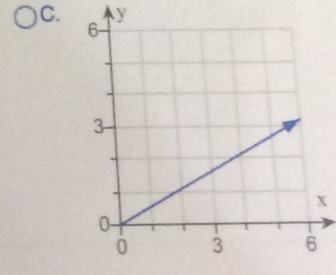
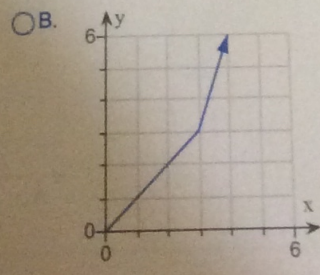
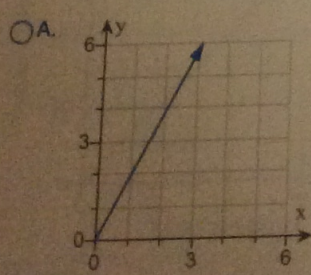
Choose the correct graph below.



2. Which of these graphs shows a relationship that is not proportional?



Choose the correct graph below.



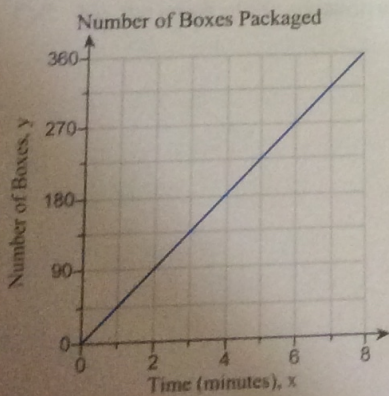
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3. Does the equation $y = 13x$ show a proportional relationship between x and y ? Explain. Choose the correct answer below.
- A. No, the graph of the equation is not a straight line.
 - B. No, the graph of the equation does not pass through the origin.
 - C. Yes, the graph of the equation is a straight line and does not pass through the origin.
 - D. Yes, the graph of the equation is a straight line that passes through the origin.

4. Does the equation $y = 6x + 3$ show a proportional relationship between x and y ? Explain. Choose the correct answer below.
- A. Yes, the graph of the equation is a straight line and passes through the origin.
 - B. No, the graph of the equation is not a straight line.
 - C. No, the graph of the equation does not pass through the origin.
 - D. Yes, the graph of the equation is a straight line.

5. The graph shows a proportional relationship between time and number of boxes a machine packages. How many boxes does the machine package in 3 minutes?

The machine packages boxes in 3 minutes.



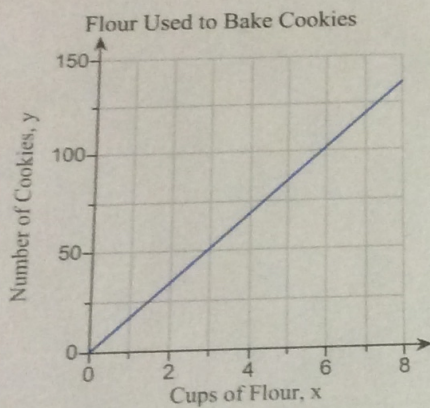
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6.

A baker likes to make cookies. The graph shows a proportional relationship between cups of flour used and number of cookies made. What does the point $(0,0)$ represent? What does the point $(1,17)$ represent?



What does the point $(0,0)$ represent? Select all that apply.

- A. The unit rate is 0 cups of flour per cookie.
- B. The baker needs 0 cups of flour to make 0 cookies.
- C. The unit rate is 0 cookies per cup of flour.
- D. The baker makes 0 cookies with 0 cups of flour.

What does the point $(1,17)$ represent? Select all that apply.

- A. The unit rate is 17 cookies per cup of flour.
- B. The unit rate is 17 cups of flour per cookie.
- C. The baker makes 17 cookies with 1 cup of flour.
- D. The baker needs 17 cups of flour to make 1 cookie.

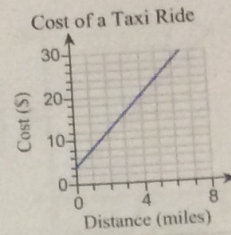
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7.

Writing The graph shows the relationship between the distance a taxi travels and the cost of the taxi ride. Is the relationship proportional? Explain. Use pencil and paper. What is true about ratios for proportional relationships that is not true about ratios for other relationships?



Is the relationship proportional?

- A. The relationship is proportional because the graph is a straight line.
- B. The relationship is not proportional because the graph does not pass through the origin.
- C. The relationship is proportional because the cost increases as the distance increases.
- D. The relationship is not proportional because the graph is not a straight line.

8.

Buying Flowers Suppose you want to buy bouquets of flowers for a party. An equation that represents the cost, y , in dollars, for x bouquets is $y = 11x$. Decide if this equation represents a proportional relationship. Explain your answer.

Does the equation $y = 11x$ represent a proportional relationship?

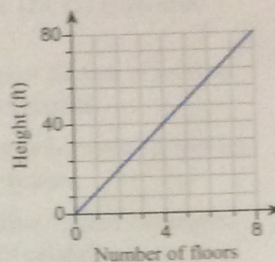
- A. Yes, the graph of the equation is a straight line passing through the origin.
- B. No, the graph of the equation is not a straight line.
- C. No, the graph of the equation does not pass through the origin.

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9. **Open-Ended** The graph represents the relationship between the number of floors, x , and the height of a building, y , in feet. Is the relationship between the number of floors and the height of the building proportional? Use pencil and paper. Describe at least two ways to find whether the relationship is proportional.



Is the relationship between the number of floors and the height of the building proportional?

- A. The relationship is not proportional because the graph is not a straight line.
- B. The relationship is proportional because the graph is a straight line that passes through the origin.
- C. The relationship is proportional because, although the graph does not pass through the origin, it is a straight line.
- D. The relationship is not proportional because the graph does not pass through the origin.

10. The cost for a ticket to a museum is \$12. Write an equation that represents the cost, y , for x tickets. Then decide if the equation represents a proportional relationship. Explain your reasoning.

An equation that represents the cost, y , for x tickets is $y = \square$.

Does the equation represent a proportional relationship?

- A. Yes, the graph is a straight line that does not pass through the origin.
- B. No, the graph of the equation does not pass through the origin.
- C. Yes, the graph of the equation is a straight line that passes through the origin.
- D. No, the graph of the equation is not a straight line.

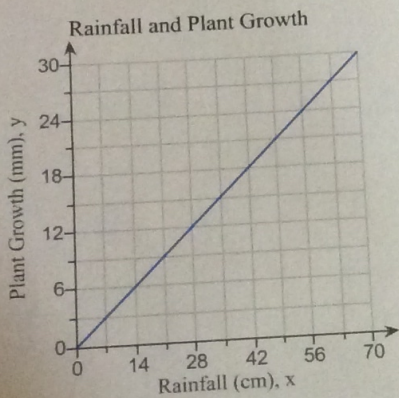
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11.

The graph shows the proportional relationship between rainfall during the growing season and seasonal growth of a type of plant. What does the point (28,12) represent? If the plants grew 9 mm one season, how much rain fell?



What does the point (28,12) represent?

- A. The plants grow 28 mm in seasons with 12 cm of rainfall.
- B. The plants grow between 12 mm and 28 mm each season.
- C. The plants grow 12 mm in seasons with 28 cm of rainfall.
- D. The rainfall is between 12 cm and 28 cm each season.

If the plants grew 9 mm one season, cm of rain fell that season.