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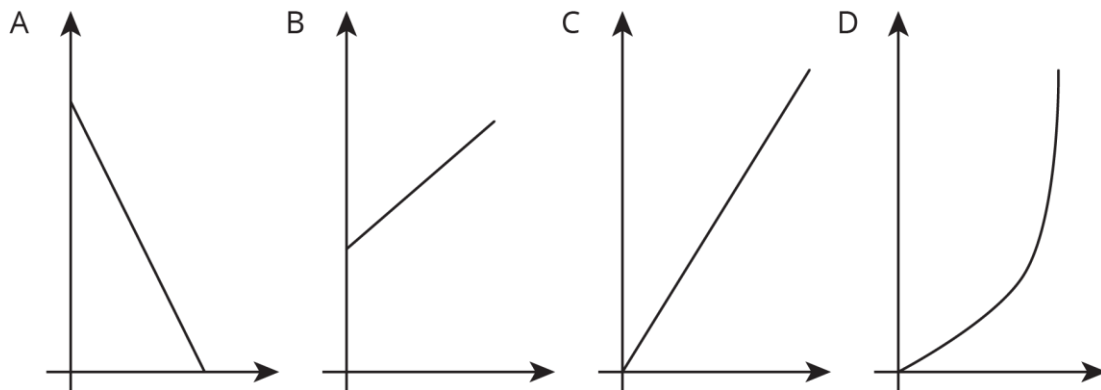
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Assessment

Introducing Proportional Relationships: End-of-Unit Assessment

You will need a straightedge for this assessment.

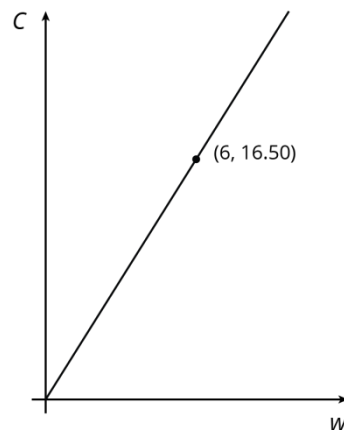
1. Which graph represents a proportional relationship?



- a. A
- b. B
- c. C
- d. D

2. The graph shows the cost C in dollars of w pounds of blueberries, a proportional relationship.

Select **all** the true statements.



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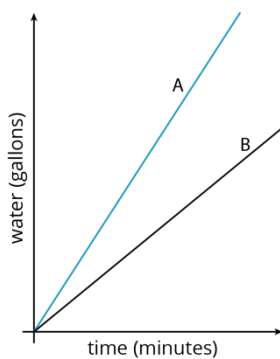
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- a. 1 pound of blueberries costs \$2.75.
 - b. 2.75 pounds of blueberries cost \$1.
 - c. 5 pounds of blueberries cost \$15.50.
 - d. 12 pounds of blueberries cost \$33.
 - e. The point (3,9) is on the graph of the proportional relationship.
3. Andre rode his bike at a constant speed. He rode 1 mile in 5 minutes.

Which of these equations represents the amount of time t (in minutes) that it takes him to ride a distance of d miles?

- a. $t = 5d$
 - b. $t = \frac{1}{5}d$
 - c. $t = d + 4$
 - d. $t = d - 4$
4. The two lines represent the amount of water, over time, in two tanks that are the same size. Which container is filling more quickly? Explain how you know.



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5. The table shows the weights of apples at a grocery store.

number of apples	weight in kilograms
2	
5	0.60
12	

Complete the table so that there is a proportional relationship between the number of apples and their weight.

6. The equation $F = \frac{9}{5}C + 32$ relates temperature measured in degrees Celsius, C , to degrees Fahrenheit, F .

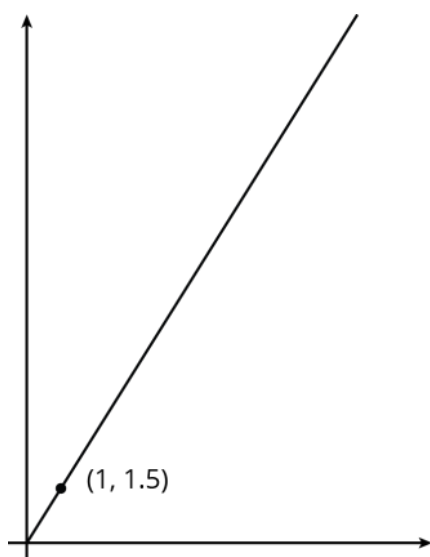
Determine whether there is a proportional relationship between C and F . Explain or show your reasoning.

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7. A recipe for salad dressing calls for 3 tablespoons of oil for every 2 tablespoons of vinegar. The line represents the relationship between the amount of oil and the amount of vinegar needed to make salad dressing according to this recipe. The point $(1, 1.5)$ is on the line.



- a. Label the axes appropriately.
- b. Write an equation that represents the proportional relationship between oil and vinegar. Indicate the meaning of each variable.
- c. Explain the meaning of the point $(1, 1.5)$ in terms of the situation.

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