

Module Assessment

Name _____

Date _____

- Pedro opens a savings account. He deposits \$15 into the account each month. Which equation represents the number of dollars d in Pedro's savings account after m months?
 - $d = 15 \cdot m$
 - $d = m + 15$
 - $m = 15 \cdot d$
 - $m = 15 + d$

- Eve is mixing paint to match a specific shade of orange. She mixes red paint and yellow paint in different ratios. The color matches best when Eve uses $\frac{3}{4}$ ounces of red paint and $\frac{2}{3}$ ounces of yellow paint.

Eve has 1 ounce of red paint left. How many ounces of yellow paint should she add to match the same shade of orange?

_____ ounces of yellow paint

3. Determine whether each of the following relationships is proportional or not proportional.

	Proportional	Not Proportional										
<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">x</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">0.5</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">4</td> </tr> <tr> <td style="padding: 5px;">y</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">6</td> <td style="padding: 5px;">12</td> </tr> </table>	x	0	0.5	2	4	y	0	3	6	12		
x	0	0.5	2	4								
y	0	3	6	12								
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x	y											
3	5.1											
5	8.5											
8	13.6											
$y = 2x + 5$												
$y = \frac{4}{7}x$												

4. Car A uses 21 gallons of gasoline to travel 590.1 miles. Car B uses 23.5 gallons of gasoline to travel 568.7 miles.

Part A

Fill in the blank to make a true statement.

Car _____ uses less gasoline per mile.

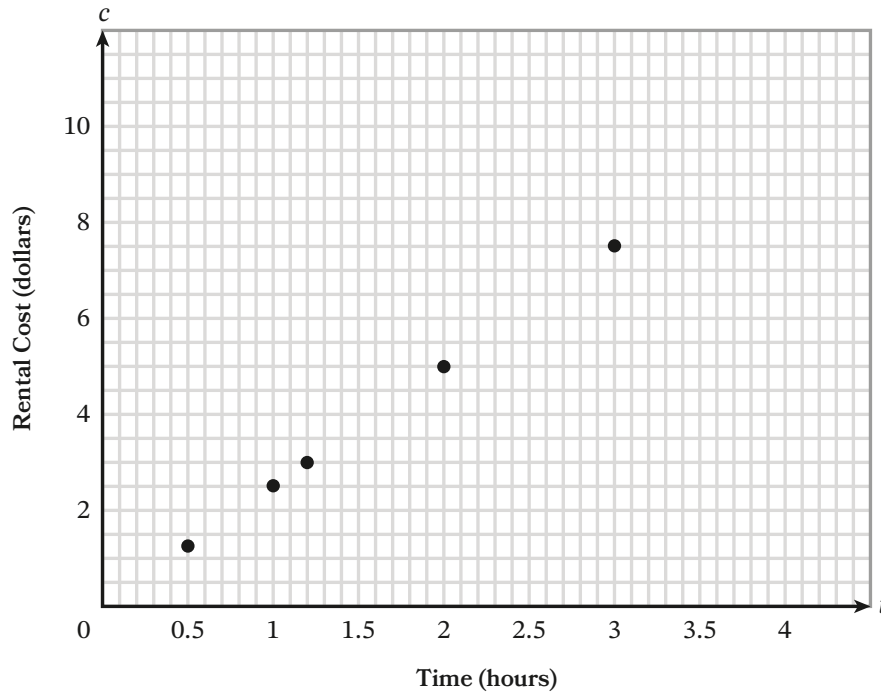
Part B

Car A and car B travel on a highway until each car uses 1 gallon of gasoline. What is the difference in the distances the cars travel?

Fill in the blanks to make a true statement.

Car _____ travels _____ miles less on 1 gallon of gasoline than the other car.

5. A shop rents bicycles to customers. The rental cost is based on the length of time the bicycle is rented. The graph shows the costs of five bicycle rentals. The relationship between time and rental cost is proportional.



Part A

Complete the table by using the times and rental costs from the graph.

Bicycle Rental Costs

Time (hours)	Rental Cost (dollars)
0.5	
1	
	3.00
	5.00
3	

Part B

Write an equation to represent the cost c in dollars to rent a bicycle for t hours.

Part C

What is the cost in dollars to rent a bicycle for 4 hours?

\$ _____

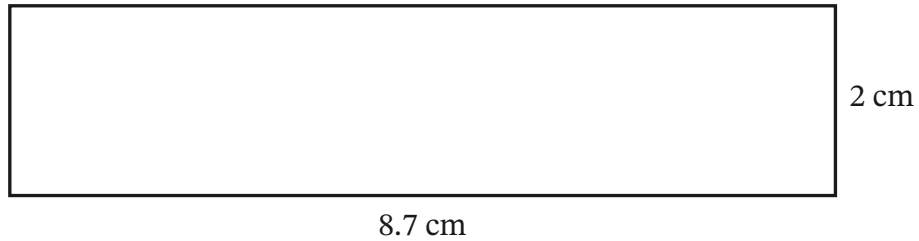
Part D

The shop advertises a sale. Customers can rent one bicycle at the regular hourly rate and rent a second bicycle at $\frac{1}{2}$ the regular hourly rate.

What is the total cost to rent two bicycles for 4 hours by using this pricing? Explain how you know.

6. Lily uses a scale factor of 2.5 to create a scale drawing of rectangle A . She claims that the area of her scale drawing is 2.5 times the area of rectangle A .

Rectangle A



Part A

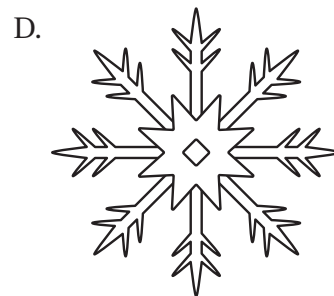
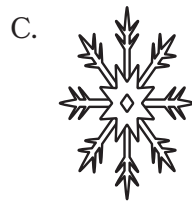
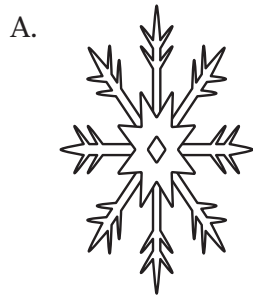
Do you agree or disagree with Lily? Explain your answer.

Part B

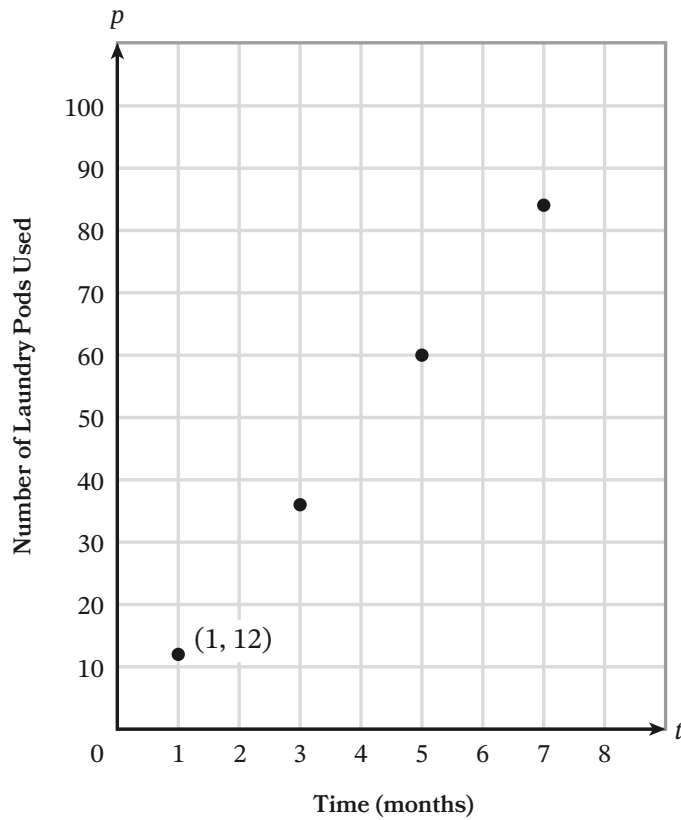
What is the area of Lily's scale drawing?

_____ sq cm

7. Which figure appears to be a scale drawing of the figure shown?



8. The graph shows the number of laundry pods p used during t months. The relationship between time and the number of laundry pods used is proportional.



Part A

What does the point $(1, 12)$ mean in this situation?

Part B

Write an equation to represent the total number of laundry pods p used in t months.

Part C

A bag contains 100 laundry pods. In what month will the last laundry pod be used? Circle an answer in the box to make the statement true.

The last laundry pod will be used in the _____ month.

6th
7th
8th
9th
10th

Part D

Explain your answer to part C.

9. Figure A is a scale drawing of an original figure. It was produced by using a scale factor of $\frac{2}{5}$. Draw figure B in the space provided so that the scale factor from the original figure to figure B is $\frac{3}{5}$.

