
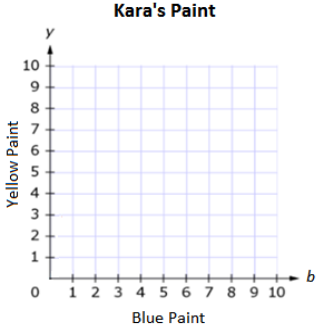
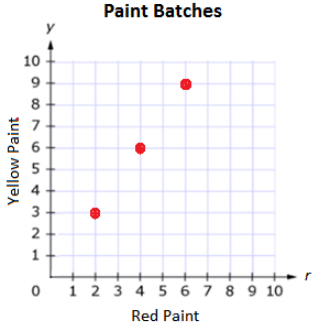
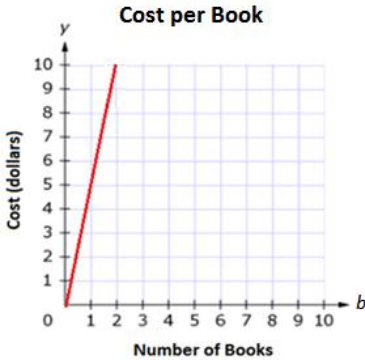


Content Standard	<p>MAFS.7.RP <i>Ratio and Proportional Relationships</i></p> <p>MAFS.7.RP.1 <i>Analyze proportional relationships and use them to solve real-world and mathematical problems.</i></p> <p>MAFS.7.RP.1.2 Recognize and represent proportional relationships between quantities.</p> <p>MAFS.7.RP.1.2a Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.</p> <p>MAFS.7.RP.1.2b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</p> <p>MAFS7.RP.1.2c Represent proportional relationships by equations. <i>For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$.</i></p> <p>MAFS.7.RP.1.2d Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.</p>	
Assessment Limits	<p>Numbers in items must be rational numbers. Ratios should be expressed as fractions, with “:” or with words. Units may be the same or different across the two quantities.</p>	
Calculator	Yes	
Item Type	<p>Equation Editor GRID Matching Item Multiple Choice Multiselect Open Response Table Item</p>	
Context	Allowable	
Sample Item		Item Type
<p>The ordered pair $(1, 5)$ indicates the unit rate of books to cost on the graph shown.</p>  <p>What does the point on the graph represent?</p>	Open Response	

Sample Item	Item Type
<p>Kara is mixing paint. Each batch has twice as much blue paint as yellow paint. Plot points to represent the amount of blue and yellow paint used in three different-sized batches.</p> 	<p>GRID</p>
<p>The points on the coordinate plane show the amount of red and yellow paint in each batch.</p>  <p>Write an equation to represent the relationship between red paint, r, and yellow paint, y, in each batch.</p>	<p>Equation Editor</p>
<p>The graph below represents the rate for the cost of b books.</p>  <p>Write an equation to represent the cost, c.</p>	<p>Equation Editor</p>

Sample Item	Item Type																												
<p>Ethan ran 11 miles in 2 hours. What is the unit rate of miles to hour?</p> <p>A. 5.5 miles per hour B. $0.\overline{18}$ miles per hour C. 5.5 hours per mile D. $0.\overline{18}$ hours per mile</p>	Multiple Choice																												
Multiselect																													
<p>Kara mixes different colors of paint to create new colors. The table shows the amount of paint Kara mixes per batch.</p>																													
Ounces of Paint																													
<table border="1"><thead><tr><th>Batch</th><th>Blue</th><th>White</th><th>Yellow</th></tr></thead><tbody><tr><td>1</td><td>2</td><td>1.5</td><td>1</td></tr><tr><td>2</td><td>5</td><td>3.5</td><td>2.5</td></tr><tr><td>3</td><td>7</td><td>5.5</td><td>3.5</td></tr><tr><td>4</td><td>6</td><td>4.5</td><td>3</td></tr><tr><td>5</td><td>4</td><td>3</td><td>2</td></tr><tr><td>6</td><td>3</td><td>2</td><td>1.5</td></tr></tbody></table>		Batch	Blue	White	Yellow	1	2	1.5	1	2	5	3.5	2.5	3	7	5.5	3.5	4	6	4.5	3	5	4	3	2	6	3	2	1.5
Batch	Blue	White	Yellow																										
1	2	1.5	1																										
2	5	3.5	2.5																										
3	7	5.5	3.5																										
4	6	4.5	3																										
5	4	3	2																										
6	3	2	1.5																										
<p>Select all the batches that will create the same color as the first batch.</p>																													
<p><input type="checkbox"/> Batch 2 <input type="checkbox"/> Batch 3 <input type="checkbox"/> Batch 4 <input type="checkbox"/> Batch 5 <input type="checkbox"/> Batch 6</p>																													