

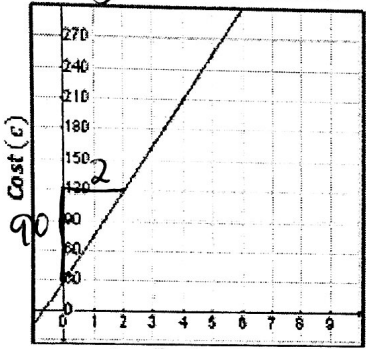
Key

Functions 8.F.2 Post-Test

Please do not use a calculator.

Answer the following questions comparing function equations, graphs, tables and descriptions.

Your family is deciding which activity to participate in while on your vacation in San Diego. Here is the information about the cost (c) for admission for all of your family members (f). Included in the cost is the parking fee for each.

<p>City Tour $\leftarrow m$</p> <p>Charges \$30 per family member plus a \$15 parking fee</p> <p>$y = 30x + 15$</p> <p>$\leftarrow b$</p>	<p>San Diego Zoo $\leftarrow m \rightarrow \\37.50</p> <p>Cost is modeled by the equation $c = \frac{75}{2}f + 10$</p> <p>$y = 37.5x + 10$</p> <p>$\leftarrow b$</p>														
<p>SeaWorld</p> <p>$y = 45x + 30$</p>  <p>$m = \frac{90}{2}$ $m = 45$ $b = 30$</p>	<p>Kayaking</p> <p>$y = 20x + 25$</p> <table border="1" data-bbox="798 761 1380 840"> <tr> <td>$\frac{0}{25}$</td> <td>f</td> <td>2</td> <td>4</td> <td>6</td> <td>8</td> <td>10</td> </tr> <tr> <td></td> <td>c</td> <td>65</td> <td>105</td> <td>145</td> <td>185</td> <td>225</td> </tr> </table> <p>$m = \frac{40}{2} = 20$</p> <p>$b = 25$</p>	$\frac{0}{25}$	f	2	4	6	8	10		c	65	105	145	185	225
$\frac{0}{25}$	f	2	4	6	8	10									
	c	65	105	145	185	225									

1. Which activity is the cheapest per family member, and how do you know?

Kayaking \rightarrow smallest slope

2. Which activity is the most expensive per family member, and how do you know?

Sea World \rightarrow largest slope

3. Which activity has the cheapest parking fee, and how do you know?

Zoo \rightarrow smallest y-intercept

4. Which activity has the most expensive parking fee, and how do you know?

Sea world \rightarrow largest y-intercept

5. How many of your family members could you bring to each activity if you budgeted \$200?

City Tour: $185/30 \rightarrow 6$ people

Sea World: $170/45 \rightarrow 3$ people

Zoo: $190/37.50 \rightarrow 5$ people

Kayaking: $175/20 \rightarrow 8$ people

6. Which activity allows you to bring the most people for that amount of money?

Kayaking

7. How much would it cost at each activity to bring a family of 4?

City Tour: $15 + 4(30) = \$135$

Zoo: $10 + 4(37.50) = \$160$

Sea World: $30 + 4(45) = \$210$

Kayaking: $25 + 4(20) = \$105$

8. Which activity is the cheapest for that many people?

Kayaking

Adapted from Eric Bright, Charleston Middle School Curriculum