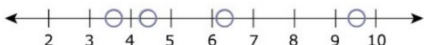



Texas Through-year Assessment Pilot (TTAP) Item Samplers – Grade 8 Math

Provided are three sets of examples that demonstrate the difference between the difficulty level classifications within the same standard. The items are categorized as Did Not Meet, Approaches, Meets, or Masters. More information about item difficulty can be found on TTAP Individual Student Reports (ISRs).

Item Sampler Set 1

8.2(B): approximate the value of an irrational number, including π and square roots of numbers less than 225, and locate that rational number approximation on a number line.

<i>Did Not Meet</i> 8.1.2.B	<i>Approaches</i> 8.1.2.B	<i>Meets</i> 8.1.2.B	<i>Masters</i> 8.1.2.B						
<p>Which point on the number line best represents the value of $\sqrt{19}$?</p> 	<p>Which values are best represented by point <i>E</i> and point <i>Q</i> on the number line?</p> <p>Select TWO correct answers.</p>  <table border="1" data-bbox="606 899 989 1037"><tbody><tr><td>$\sqrt{7.6}$</td><td>$\sqrt{53.9}$</td><td>$\sqrt{58.2}$</td></tr><tr><td>$\sqrt{10.4}$</td><td>$\sqrt{108.2}$</td><td>$\sqrt{112.9}$</td></tr></tbody></table>	$\sqrt{7.6}$	$\sqrt{53.9}$	$\sqrt{58.2}$	$\sqrt{10.4}$	$\sqrt{108.2}$	$\sqrt{112.9}$	<p>A square patio has an area of 88 square yards. Which measurement is closest to the side length of the patio in yards?</p> <p>A. 3.1 yd B. 22 yd C. 9.4 yd D. 44 yd</p>	<p>The area of a square tabletop is 4.9 square feet. Which measurement is closest to the length of each side of the tabletop in feet?</p> <p>A. 2.2 ft B. 2.5 ft C. 0.7 ft D. 1.2 ft</p>
$\sqrt{7.6}$	$\sqrt{53.9}$	$\sqrt{58.2}$							
$\sqrt{10.4}$	$\sqrt{108.2}$	$\sqrt{112.9}$							
Answer: between 4 and 5	Answer: 58.2, 108.2	Answer: C	Answer: A						

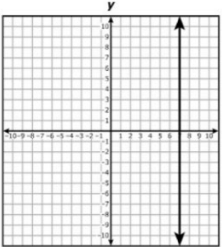
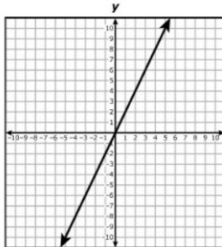
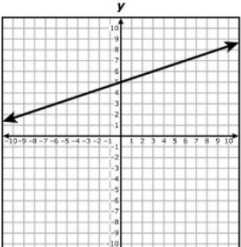
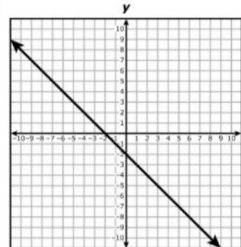

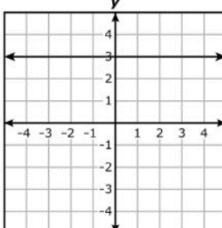
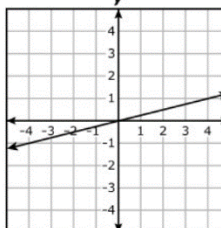
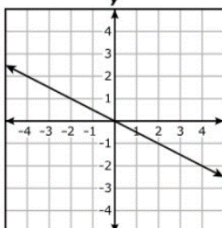
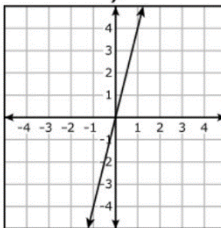
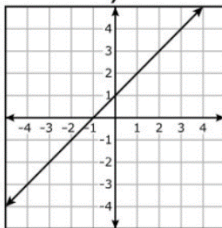
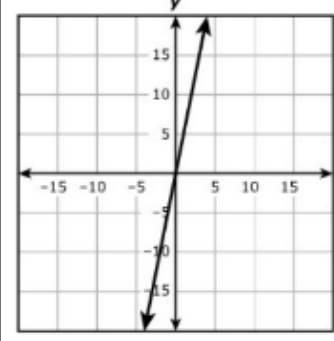
Item Sampler Set 2

8.4(B): graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.

Did Not Meet 8.2.4.B	Approaches 8.2.4.B	Meets 8.2.4.B	Masters 8.2.4.B
<p>Sebastian is playing a video game. He earns 80 points for every 5 items collected.</p> <p>Which graph has a slope that best models the number of points per item collected?</p> <div><div><p>A</p><p>Video Game Points</p></div><div><p>C</p><p>Video Game Points</p></div><div><p>D</p><p>Video Game Points</p></div><div><p>E</p><p>Video Game Points</p></div></div> <p>Answer: D</p>	<p>An ice-cream shop sells 5 chocolate ice-cream cones for every 2 vanilla ice-cream cones it sells.</p> <p>Graph a line that models the relationship between the number of chocolate ice-cream cones sold, y, and the number of vanilla ice-cream cones sold, x.</p> <p>Select two points on the coordinate grid. A line will connect the points.</p> <div><p>Ice-Cream Cone Sales</p></div> <p>Answer: (2,5) and (4,10)</p>	<p>A grocery store sells apples by the pound. The store sells 5 pounds of apples for \$10.</p> <p>Choose two points that lie on the graph of the line with a slope that best represents the cost in dollars per pound of apples.</p> <p>Select TWO correct answers.</p> <div><p>Cost of Apples</p></div> <p>Answer: (1, 2) and (3, 6)</p>	<p>Mateo makes key chains to sell. He can make 2 key chains every 1/2 hour.</p> <p>Which graph has a slope that best models the number of key chains per hour Mateo can make?</p> <div><div><p>C</p><p>Making Key Chains</p></div><div><p>E</p><p>Making Key Chains</p></div><div><p>D</p><p>Making Key Chains</p></div><div><p>F</p><p>Making Key Chains</p></div></div> <p>Answer: D</p>

Item Sampler Set 3

8.5(F): distinguish between proportional and non-proportional situations using tables, graphs, and equations in the form $y = kx$ or $y = mx + b$, where $b \neq 0$.

Did Not Meet 8.2.5.F	Approaches 8.2.5.F	Meets 8.2.5.F	Masters 8.2.5.F																																																												
<p>Which graph shows the relationship between x and y?</p> <div><p>(A) </p><p>(B) </p><p>(C) </p><p>(D) </p></div> <p>Answer: B</p>	<p>Which graph shows a non-proportional relationship between x and y?</p> <p>Select TWO correct answers.</p> <div></div> <p>Answer: 1, 5</p>	<p>Determine whether each of the three relations shown best represents a proportional relationship or a non-proportional relationship between x and y?</p> <div><p>$y = 0.25x - 4$</p><table><thead><tr><th>x</th><th>1</th><th>2</th><th>3</th><th>4</th></tr></thead><tbody><tr><th>y</th><td>2.5</td><td>5</td><td>7.5</td><td>10</td></tr></tbody></table></div> <p>Answer: no, yes, yes</p>	x	1	2	3	4	y	2.5	5	7.5	10	<p>Which graph shows a proportional relationship between x and y?</p> <p>Select TWO correct answers.</p> <div><table><thead><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td>4</td><td>12</td></tr><tr><td>6</td><td>18</td></tr><tr><td>8</td><td>24</td></tr><tr><td>12</td><td>36</td></tr></tbody></table><table><thead><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td>20</td><td>12</td></tr><tr><td>21</td><td>14</td></tr><tr><td>22</td><td>16</td></tr><tr><td>23</td><td>18</td></tr></tbody></table><table><thead><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td>3</td><td>15</td></tr><tr><td>5</td><td>20</td></tr><tr><td>9</td><td>25</td></tr><tr><td>11</td><td>30</td></tr></tbody></table><table><thead><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td>8</td><td>2</td></tr><tr><td>16</td><td>4</td></tr><tr><td>24</td><td>6</td></tr><tr><td>36</td><td>9</td></tr></tbody></table><table><thead><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td>10</td><td>20</td></tr><tr><td>20</td><td>30</td></tr><tr><td>30</td><td>40</td></tr><tr><td>40</td><td>50</td></tr></tbody></table></div> <p>Answer: 1, 4</p>	x	y	4	12	6	18	8	24	12	36	x	y	20	12	21	14	22	16	23	18	x	y	3	15	5	20	9	25	11	30	x	y	8	2	16	4	24	6	36	9	x	y	10	20	20	30	30	40	40	50
x	1	2	3	4																																																											
y	2.5	5	7.5	10																																																											
x	y																																																														
4	12																																																														
6	18																																																														
8	24																																																														
12	36																																																														
x	y																																																														
20	12																																																														
21	14																																																														
22	16																																																														
23	18																																																														
x	y																																																														
3	15																																																														
5	20																																																														
9	25																																																														
11	30																																																														
x	y																																																														
8	2																																																														
16	4																																																														
24	6																																																														
36	9																																																														
x	y																																																														
10	20																																																														
20	30																																																														
30	40																																																														
40	50																																																														