Think Smart for the Smarter Balanced Assessment

- Smarter Balanced Assessment Item Types
- Countdown to SBAC
- Chapter Tests in SBAC Format
- Chapter Performance Tasks, Rubrics, and Student Work Samples
- Benchmark Tests with Performance Tasks

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Countdown: 8 Weeks

1. Triangles $ABC$ and $CDE$ are slope triangles. 8.EE.6

   **Part A:** Show that the slope triangles are similar.

   **Part B:** Compare the rise to the run for each of the triangles. Write the reason next to each step in the solution.

   $\frac{ED}{CB} = \frac{CD}{AB}

   ED \cdot AB = CB \cdot CD

   \frac{ED \cdot AB}{CD \cdot AB} = \frac{CB \cdot CD}{CD \cdot AB}

   \frac{ED}{CD} = \frac{CB}{AB}$

   **Part C:** What conclusion can you draw from the work in Part B?

2. A tennis court is rectangular with a length of 120 feet and a width of 60 feet. For warm-up, a player runs along the diagonal of the court from one corner to the other. His partner runs the length and width of the court to the opposite corner. How much farther did the partner run? Explain your answer. Round to the nearest tenth. 8.G.7
3. A student climbs up the ladder of a slide and slides down. Select all of the statements that are represented by the graph. 8.F.5

- The student reaches the bottom of the slide at D.
- The student slides faster at the top of the slide than at the bottom.
- The student pauses at the top of the slide before sliding down.
- The student slows as he reaches the top of the ladder.
- The student is never more than 6 feet off the ground.

4. Every 15 minutes, the height of the water in the pool is measured and plotted. The data are shown in the table. 8.SP.2

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>15</th>
<th>30</th>
<th>45</th>
<th>75</th>
<th>90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Height (cm)</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
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**Part A:** Construct a scatter plot of the data.

**Part B:** Would the equation $y = x + 40$ or the equation $y = 0.5x + 30$ better model the data? Explain.

5. Roberta plots coordinates to represent the corners of her garden: $A(2.5, 1.5)$, $B(-4, 3)$, and $C(-2, -5)$. She decides to quadruple the length of each side using the origin as the center for the enlargement of her garden. Select all of the statements that are true about the new coordinates. 8.G.3

- The perimeter of the garden is 4 times the original perimeter.
- $A'$ is located at $(10, 6)$.
- $B'$ is located at $(-1, 0.75)$.
- $C'$ is located at $(-8, -20)$.
- The area of the garden is 8 times greater than the original.

**Think Smart for SBAC**

On the actual test, you might be asked to click all of the correct answer choices. In this book, you will be asked to shade a box next to each correct answer choice.
1. Triangles $ABC$ and $CDE$ are slope triangles. 8.EE.6
   
   **Part A:** Show that the slope triangles are similar.
   
   Sample answer: $\angle ABC \cong \angle CDE$ and $\angle BCA \cong \angle DEC$, so the triangles are similar by the Angle-Angle Similarity.

   **Part B:** Compare the rise to the run for each of the triangles. Write the reason next to each step in the solution.
   
   $\frac{ED}{CB} = \frac{CD}{AB}$
   
   Find the cross products.
   
   $ED \cdot AB = CB \cdot CD$

   Division Property of Equality
   
   $\frac{ED}{CD} = \frac{CB}{AB}$

   **Part C:** What conclusion can you draw from the work in Part B?
   
   Sample answer: The slope between any two points on a non-vertical line is the same.

2. A tennis court is rectangular with a length of 120 feet and a width of 60 feet. For warm-up, a player runs along the diagonal of the court from one corner to the other. His partner runs the length and width of the court to the opposite corner. How much farther did the partner run? Explain your answer. Round to the nearest tenth. 8.G.7
   
   45.8 ft farther; Sample answer: Add the length and width: $120 + 60 = 180$ ft. Find the length of the diagonal by solving $d^2 = 120^2 + 60^2$ to get $d \approx 134.2$ ft. Subtract: $180 - 134.2 = 45.8$ ft.

3. A student climbs up the ladder of a slide and slides down.
   Select all of the statements that are represented by the graph. 8.F.5
   
   - The student reaches the bottom of the slide at D.
   - The student slides faster at the top of the slide than at the bottom.
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   **Part A:** Construct a scatter plot of the data.

   **Part B:** Would the equation $y = x + 40$ or the equation $y = 0.5x + 30$ be a better model of the data? Explain.

   $y = 0.5x + 30$; Sample answer: The data points are much closer to the line $y = 0.5x + 30$ than they are to the line $y = x + 40$, making the first equation a better model of the data.

5. Roberta plots coordinates to represent the corners of her garden: $A(2, 5), B(-4, 3),$ and $C(-2, -5).$ She decides to quadruple the length of each side using the origin as the center for the enlargement of her garden. Select all of the statements that are true about the new coordinates. 8.G.3
   
   - The perimeter of the garden is 4 times the original perimeter.
   - $A'$ is located at $(10, 6).$
   - $B'$ is located at $(-8, 0.75).$
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