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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- Question Analysis Charts
- Student Scoring Rubrics
- Technology-Enhanced Questions
- More Performance Tasks!
Countdown: 14 Weeks

1. Yeardley sold 3 times as many ads for the yearbook as Xavier. Xavier sold 8 fewer ads than Yeardley. The number of ads sold by each student can be represented by this system of equations: \( y = 3x \) and \( y = x + 8 \). 8.EE.8, 8.EE.8b, 8.EE.8c

**Part A:** Graph the equations on the coordinate plane. Label the point of intersection.

**Part B:** What is the solution to the system of equations? What does the solution represent?

2. The graph shows the amount in dollars left on a company’s copy card after the card has been used to make different numbers of copies. Write a number or word to complete the statements. 8.F.4

<table>
<thead>
<tr>
<th>Number of Copies Made</th>
<th>Amount Left on Card ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-20</td>
<td>0.10</td>
</tr>
<tr>
<td>-10</td>
<td>0.20</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>slope</th>
<th>y-intercept</th>
<th>x-intercept</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.20</td>
<td>100</td>
</tr>
</tbody>
</table>

The slope is \( \) . The y-intercept is \( \) .

The \( \) shows the initial amount on the card in dollars.

The \( \) shows that the amount on the card decreases by \( \) each time a copy is made.

Think Smart for SBAC

On the actual test, you might be asked to click buttons to graph lines and plot points. In this book, you will be asked to draw lines and points on a coordinate plane.
3. This number line shows four points labeled $A$, $B$, $C$, and $D$. Select whether each statement is true or false. 8.NS.2

$$A \quad B \quad C \quad D$$

<table>
<thead>
<tr>
<th></th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

The value of $\sqrt{70}$ is to the left of point $A$.
The value of $\sqrt{72}$ is between point $B$ and point $C$.
The coordinate of point $D$ is less than $\sqrt{77}$.

4. The table shows the amount of time a motorboat has been traveling and the distance it traveled. The total distance traveled is a direct variation of the number of hours. Write numbers in the spaces to find the slope. Then write the equation in $y = mx$ form to represent the situation. 8.F.4

<table>
<thead>
<tr>
<th>Time (h), $x$</th>
<th>3</th>
<th>6</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance (mi), $y$</td>
<td>63</td>
<td>126</td>
<td>189</td>
</tr>
</tbody>
</table>

slope: $\frac{63 - 126}{3 - 6} = \frac{63}{3}$

equation: $y = \frac{63}{3}x$

5. The height of a penny dropped from a 64-foot-tall bridge is modeled by the function $h = -16t^2 + 64$, where $t$ is the time in seconds and $h$ is the height of the penny above the lake. 8.F.1, 8.F.3

**Part A:** Complete the table of values below.

<table>
<thead>
<tr>
<th>Time (s), $t$</th>
<th>0</th>
<th>0.5</th>
<th>1</th>
<th>1.5</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (ft), $h$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Part B:** Graph the function on the coordinate plane.

**Part C:** How long does it take for the penny to reach the lake?
Countdown: 14 Weeks

1. Yeardley sold 3 times as many ads for the yearbook as Xavier. Xavier sold 8 fewer ads than Yeardley. The number of ads sold by each student can be represented by this system of equations:
y = 3x
y = x + 8

Part A: Graph the equations on the coordinate plane. Label the point of intersection.

Part B: What is the solution to the system of equations? What does the solution represent?

(4, 12); Xavier sold 4 ads and Yeardley sold 12 ads.

2. The graph shows the amount in dollars left on a company’s copy card after the card has been used to make different numbers of copies. Write a number or word to complete the statements. 8.F.4

The slope is
The y-intercept is
The y-intercept shows the initial amount on the card in dollars.
The slope shows that the amount on the card decreases by 0.10 each time a copy is made.

3. This number line shows four points labeled A, B, C, and D. Select whether each statement is true or false. 8.NS.2

True False
☐ ☐ The value of \( \sqrt{70} \) is to the left of point A.
☐ ☐ The value of \( \sqrt{72} \) is between point B and point C.
☐ ☐ The coordinate of point D is less than \( \sqrt{77} \).

4. The table shows the amount of time a motorboat has been traveling and the distance it traveled. The total distance traveled is a direct variation of the number of hours. Write numbers in the spaces to find the slope. Then write the equation in \( y = mx \) form to represent the situation. 8.F.1, 8.F.3

slope: __________ equation: __________

5. The height of a penny dropped from a 64-foot-tall bridge is modeled by the function \( h = -16t^2 + 64 \), where \( t \) is the time in seconds and \( h \) is the height of the penny above the lake. 8.F.1, 8.F.3

Part A: Complete the table of values below.

<table>
<thead>
<tr>
<th>Time (s), t</th>
<th>0</th>
<th>0.5</th>
<th>1</th>
<th>1.5</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (ft), h</td>
<td>64</td>
<td>60</td>
<td>48</td>
<td>28</td>
<td>0</td>
</tr>
</tbody>
</table>

Part B: Graph the function on the coordinate plane.

Part C: How long does it take for the penny to reach the lake?

2 s