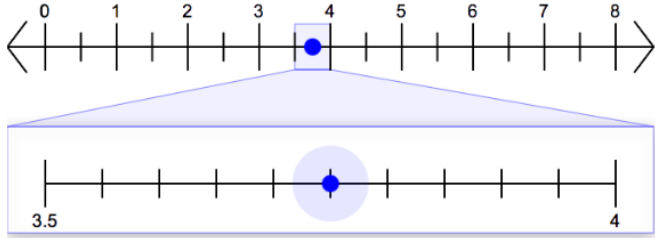


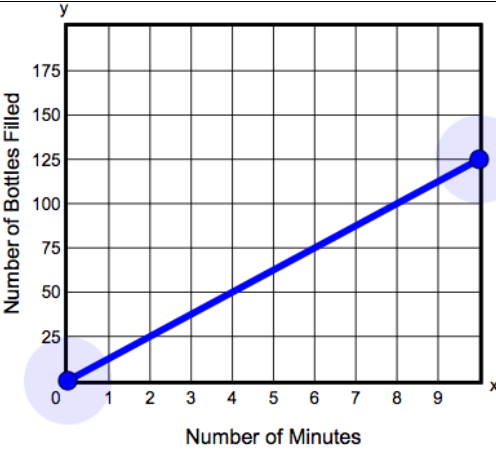
Grade 8 Mathematics Computer-Based Practice Test Answer Key

The following pages include the answer key for all machine-scored items, followed by the rubrics for the hand-scored items. The rubrics show sample student responses. Other valid methods for solving the problem can earn full credit unless a specific method is required by the item. In items where the scores are awarded for full and partial credit, if students make a computation error, they can still earn points for reasoning or modeling.

Session 1

Item Number	Answer Key	Standard																					
1	B	8.EE.5																					
2	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">function</td> <td style="text-align: center;">$y = 7 \times 4x$</td> <td style="text-align: center;">$y = (2x + 5)^2$</td> <td style="text-align: center;">$y = 10x^2$</td> <td style="text-align: center;">$y = 5x - 3$</td> <td style="text-align: center;">$y = \frac{x}{2}$</td> <td style="text-align: center;">$y = 2x^3 + 1$</td> </tr> <tr> <td style="text-align: center;">linear</td> <td style="text-align: center;"><input checked="" type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input checked="" type="radio"/></td> <td style="text-align: center;"><input checked="" type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td style="text-align: center;">non-linear</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input checked="" type="radio"/></td> <td style="text-align: center;"><input checked="" type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input checked="" type="radio"/></td> </tr> </table>	function	$y = 7 \times 4x$	$y = (2x + 5)^2$	$y = 10x^2$	$y = 5x - 3$	$y = \frac{x}{2}$	$y = 2x^3 + 1$	linear	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	non-linear	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	8.F.3
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3		8.NS.2																					
4	Part A: D Part B: C	8.G.3																					
5	8	8.G.7																					
6	<i>See rubric</i>	8.F.2																					

Session 2

Item Number	Answer Key	Standard
1		8.EE.5
2	B, C	8.SP.4
3	D	8.F.5
4	<p>Part A: 19</p> <p>Part B:</p> <p>In the system of equations, x represents</p> <p>the cost, in dollars, of each t-shirt and y represents</p> <p>the cost, in dollars, of each sweatshir .</p> <p>Part C: (8, 11)</p> <p>Part D: 30</p>	8.EE.8
5	(7, 67)	8.SP.1
6	See rubric	8.G.5

Rubrics start on the next page.

Scoring Rubric for Grade 8 Practice Test; Session 1, Item #6:

Score	Description
4	The student response demonstrates an exemplary understanding of the Functions concepts involved in comparing properties of functions represented in different ways. The student compares the y -intercepts and the slopes of functions that are represented in different ways and writes an equation of a line from a graph.
3	The student response demonstrates a good understanding of the Functions concepts involved in comparing properties of functions represented in different ways. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result the response merits 3 points.
2	The student response demonstrates a fair understanding of the Functions concepts involved in comparing properties of functions represented in different ways. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 2 points.
1	The student response demonstrates a minimal understanding of the Functions concepts involved in comparing properties of functions represented in different ways.
0	The student response contains insufficient evidence of an understanding of the Functions concepts involved in comparing properties of functions represented in different ways to merit any points.

Sample Response:

- a. $(0, -2)$ and $(2, 1)$
 $(1 - (-2)) / (2 - 0) = 3/2$
- b. $y = 3x - 6$
- c. 6; when $x = 0$, $y = 6$
- d. Function K, Function H, Function I, and Function J.

Scoring Rubric for Grade 8 Practice Test; Session 2, Item #6:

Part A:

Score	Description
1	<p>Student response includes the following element.</p> <ul style="list-style-type: none"> • Correct explanation of why triangle RTS is similar to triangle VTU <p>Sample Student Response: $\angle SRT$ and $\angle UVT$ are alternate interior angles, and therefore congruent. $\angle RST$ and $\angle TUV$ are alternate interior angles, and therefore congruent. $\angle RTS$ and $\angle UTV$ are vertical angles, and therefore congruent. Triangle RTS is similar to triangle VTU by the angle-angle criterion.</p> <p>Note: Two of the three angle statements must be stated for the student to get one point.</p>
0	Student response is incorrect or irrelevant.

Part B:

Score	Description
2	<p>Student response includes each of the following 2 elements.</p> <ul style="list-style-type: none"> • Determines $m\angle SRT + m\angle TUV = 108^\circ$ • Correct work shown or explanation given <p>Sample Student Response: Angles TUV and RST are alternate interior angles so $m\angle TUV = m\angle RST$. Since $m\angle RTS + m\angle STV = 180$ and $m\angle STV = 108^\circ$, $m\angle RTS = 180^\circ - 108^\circ = 72^\circ$. The measures of the angles of a triangle sum to 180° so, $\begin{aligned} m\angle SRT + m\angle RST &= 180^\circ - m\angle RTS \\ &= 180^\circ - 72^\circ \\ &= 108^\circ \end{aligned}$ So $m\angle SRT + m\angle TUV = m\angle SRT + m\angle RST = 108^\circ$.</p>
1	Student response includes 1 of the 2 elements.
0	Student response is incorrect or irrelevant.