RELEASED TEST ITEMS



Reporting Category:	Measurement, Data, and Geometry			
Grade 8 Mathematics GLE 26:	Predict, draw, and discuss the resulting changes in lengths, orientation, and angle measures that occur in figures under a similarity transformation (dilation)			
Achievement Level:	Advanced			
Calculator:	calculator optional			



* correct answer

This item would most likely be answered correctly by students who score at the *Advanced* level. The item requires students to identify an angle measure of a corresponding angle of a similar triangle. Students who select option A may focus on the visual aspect of the smaller triangle appearing to be half the size of the larger triangle, so they divide 48 by 2. Students who select option B incorrectly use the scale factor of 1.75 to divide 48 by 1.75. Students who select option D also incorrectly use the scale factor of 1.75 but multiply 48 by 1.75. Students who correctly select option C recognize that the image produced by a dilation is similar to the original figure and that corresponding angles of similar figures have equal angle measures.

Reporting Category:	Measurement, Data, and Geometry	
Grade 8 Mathematics GLE 38:	Sketch and interpret a trend line (i.e., line of best fit) on a scatterplot	
Achievement Level:	Mastery	
Calculator:	calculator optional	



* correct answer

This item would most likely be answered correctly by students who score at the *Mastery* level and above. The item requires students to describe the effect that removing three data points from a scatter plot has on a line of best fit. Students who select option A incorrectly conclude that points lying the greatest distance from the line of best fit have little to no effect on its orientation. Students who select option B incorrectly conclude that removing the data points that lie the

Reporting Category:	Ratio, Proportion, and Algebra
Grade 8 Mathematics GLE 13:	Switch between functions represented as tables, equations, graphs, and verbal representations, with and without technology
Achievement Level:	Basic
Calculator:	calculator optional



* correct answer

Reporting	Category:	N
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Number System

Grade 8 Mathematics GLE 1:

Compare rational numbers using symbols (i.e., <, \leq , =, \geq , >) and position on a number line

Achievement Level:

Calculator:

Approaching Basic

calculator optional

Use the table below to answer question XX.					
Daily Outside Temperatures					
	Day	Temperature (degrees Fahrenheit)			
	1	-16			
	2	8			
	3	-1			
	4	18			
Aidan recorded the outside temperature each of four days. Which list shows the temperatures in order from the highest outside temperature to the lowest outside temperature?					
 A. 10, 1, 8, 18 * B. 18, 8, −1, −16 C. −1, −16, 8, 18 D. 18, 8, −16, −1 					

* correct answer

This item would most likely be answered correctly by students who score at the *Approaching Basic* level and above. The item requires students to order temperatures shown in a table from highest to lowest. Students who select option A find the order from lowest to highest instead of highest to lowest. Students who select option C think that -1 is a smaller number than -16. Students who select option D find the order from highest to lowest and think that -1 is a smaller number than -16. Students who correctly select option B order the numbers from highest to lowest. One tool a student could use to accomplish this is plotting the points on a number line.

Grade 8—Mathematics Constructed-Response Item

The following pages present a constructed-response item, a scoring rubric, and examples of student work at scores of 0 to 4. The item is shown below, and the scoring rubric can be found on page 12. The Reporting Category for this item is **Ratio**, **Proportion**, **and Algebra**. This item requires students to find unit/ cost rates and apply them in real-life problems. Calculator use is allowed on all constructed-response items.

Write the answer to question XX in the spaces below.

Two 15-gallon containers of water are shown below with their gross weights in pounds.





Container A 122 pounds Container B 82 pounds

The containers each weigh 2 pounds when they are empty. One of the containers is completely full of water. How many gallons of water are in both containers combined? Show your work in the space below.

Number of gallons: _____