



# Released Items

# Grade 7 Math

## AzMERIT

Updated January, 2019

*Prepared by the Arizona Department of Education and the American Institutes for Research®*



## About the Released Items

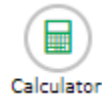
The *AzMERIT Released Items* provides details about the items, student response types, correct responses, and related scoring considerations for released AzMERIT test items.

Within this guide, each item is presented with the following information:

- Cluster
- Content Standard
- Depth of Knowledge (DOK)
- Static presentation of the item
- Static presentation of student response field (when appropriate)
- Answer key, rubric or exemplar
- Applicable score point(s) for each item
- Option rationales (when applicable)

The items included in this guide are representative of the kinds of items that students can expect to experience when taking the computer-based test for AzMERIT Grade 7 Math.

For items that that permit the use of a calculator, a calculator icon



is indicated.

## Grade 7 Math Released Items

Cluster	Content Standard	DOK
7.SP.A	7.SP.A.2	2

Caitlin wants to find out how many of the 735 students at her school have a bike. She surveys a random sample of 105 students and finds that 57 of them have a bike.

Based on Caitlin's survey, how many students at her school should she expect to have a bike?

399

← → ↶ ↷ ✖

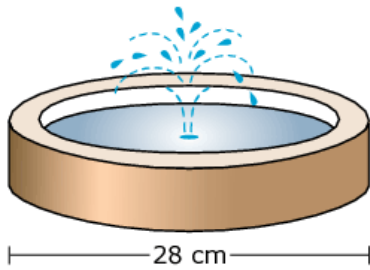
1	2	3
4	5	6
7	8	9
	0	
.	-	$\frac{\square}{\square}$

**(1 Point)** Student entered 399 or 400.



Cluster	Content Standard	DOK
7.G.A	7.G.A.1	2

Kara creates a scale drawing of a fountain using the scale  $7 \text{ cm} = 2 \text{ ft}$ . A sketch of Kara's scale drawing is shown. The diameter of the scale drawing is 28 cm.



What is the actual diameter of the fountain?

feet

← → ↶ ↷ ✕

1	2	3
4	5	6
7	8	9
	0	
.	-	$\frac{\square}{\square}$

**(1 Point)** Student entered **8** or any equivalent value.



Cluster	Content Standard	DOK
7.EE.B	7.EE.B.4	3

A sandwich shop offers a 15% discount when a customer spends at least \$75. The shop sells sandwiches for \$8.25 each and cookies for \$1.45 each.

Juliana buys 8 sandwiches.

What is the least number of cookies that Juliana can buy and still get the discount?

7

←
→
↶
↷
✖

1	2	3
4	5	6
7	8	9
	0	
.	-	$\frac{\square}{\square}$

**(1 Point)** Student entered 7 or any equivalent value.



Calculator

Cluster	Content Standard	DOK
7.RP.A	7.RP.A.3	2

Marsha's class is planting 120 trees as part of a community volunteer project. The class plants pine trees and oak trees in a ratio of 3 to 1.

How many pine trees does Marsha's class plant?

90

← → ↶ ↷ ✖

1	2	3
4	5	6
7	8	9
	0	
.	-	$\frac{\square}{\square}$

**(1 Point)** Student entered **90** or any equivalent value.



Cluster	Content Standard	DOK
7.NS.A	7.NS.A.2	2

What is the value of  $-3\left(\frac{4}{3} - 9\right)$ ?

23

A calculator interface with a grid of buttons. The top row contains navigation buttons: left arrow, right arrow, undo (curved left arrow), redo (curved right arrow), and a clear button (X in a square). Below this is a grid of input buttons: a 3x3 grid of numbers 1 through 9, a row with an empty box, 0, and another empty box, and a row with a decimal point, a negative sign, and a fraction template button (two squares with a horizontal line between them).

**(1 Point)** Student entered **23** or any equivalent value.