



# Released Items

# Grade 3 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 3 Math.

## Grade 3 Math Released Items

Cluster	Content Standard	DOK
3.OA.A	3.OA.A.4	2

Multiplying 4 by what number equals 20?

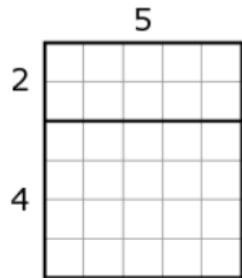
5

A digital math input interface. At the top, there is a row of five navigation icons: a left arrow, a right arrow, a circular arrow pointing left, a circular arrow pointing right, and a square with an 'X' inside. Below this is a grid of buttons. The first three columns contain the numbers 1, 2, 3 in the first row; 4, 5, 6 in the second row; 7, 8, 9 in the third row; and 0, a decimal point, and a fraction symbol in the fourth row. The grid is currently empty, with no numbers entered.

**(1 Point)** Student entered 5 or any equivalent value.

Cluster	Content Standard	DOK
3.MD.C	3.MD.C.7	2

A figure is shown.



Select all the expressions that represent the area of the entire figure.

- $5 + 2 + 4$
- $5 \times (2 + 4)$
- $5 + (2 \times 4)$
- $(4 \times 2) + (4 \times 5)$
- $(5 \times 2) + (5 \times 4)$

**(1 Point)** Student selected both correct expressions.

**Option Rationales:**

**Choice A:** The student may have mistakenly added the height to the length, rather than multiplying it.

**Choice B: Key** - The student correctly identified the expression that represents the area of the figure.

**Choice C:** The student may have switched the addition and multiplication signs.

**Choice D:** The student may not have understood that you need to multiply the length by the width.

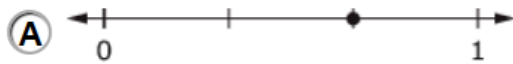
**Choice E: Key** - The student correctly identified the expression that represents the area of the figure.

Cluster	Content Standard	DOK
3.NF.A	3.NF.A.3	1

A point is shown on a number line.



Which number line has a point that represents an equivalent fraction?



**(1 Point)** Student selected the correct option.

**Option Rationales:**

**Choice A:** The student may have selected an option with 2 parts, not noting that  $2/3$  would not be the same as  $2/4$ .

**Choice B:** The student may have selected an option with 2 parts, not noting that  $2/3$  would not be the same as  $2/5$ .

**Choice C:** The student may have selected an option with 2 parts, not noting that  $2/3$  would not be the same as  $2/6$ .

**Choice D: Key** - The student noted that  $3/6$  would be at the same point on the number line as  $2/4$ , halfway between 0 and 1.

Cluster	Content Standard	DOK
3.NBT.A	3.NBT.A.1	3

Select **all** the numbers that round to 300 when rounded to the nearest 10 and when rounded to the nearest 100.

290

295

300

303

305

310

**(1 Point)** Student selected all three correct numbers.

**Option Rationales:**

**Choice A:** The student may have selected a number that rounds to 300 only when rounding to the nearest 100.

**Choice B: Key** - The student correctly identified a number that rounds to 300 when rounding to both the nearest 10 and 100.

**Choice C: Key** - The student correctly identified a number that rounds to 300 when rounding to both the nearest 10 and 100.

**Choice D: Key** - The student correctly identified a number that rounds to 300 when rounding to both the nearest 10 and 100.

**Choice E:** The student may have selected a number that rounds to 300 only when rounding to the nearest 100 or thought that 5 rounds down.

**Choice F:** The student may have selected a number that rounds to 300 only when rounding to the nearest 100.

Cluster	Content Standard	DOK
3.G.A	3.G.A.1	1

Which property is always shared by a square and a rectangle?

- Both shapes have angles that are all right angles.
- Both shapes have sides that are different lengths.
- Both shapes have angles that are not right angles.
- Both shapes have sides that are all the same length.

**(1 Point)**

**Option Rationales:**

**Choice A: Key** - The student correctly identified an attribute of both a rectangle and a square.

**Choice B:** The student may have incorrectly applied a possible attribute of a rectangle to a square.

**Choice C:** The student may have incorrectly applied an attribute of other quadrilaterals to squares and rectangles.

**Choice D:** The student may have considered special cases of rectangles that have all the same side length but did not consider all cases of rectangles.