



Released Items

End-of-Course Algebra I

AzMERIT

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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 End-of-Course (EOC) Algebra I.

EOC Algebra I Released Items

Cluster	Content Standard	DOK
A1.F-IF.A	A1.F-IF.A.1	3

Relation A is a function. Relation B is **not** a function.

Complete the tables to show possible input and output values for the two relations.

Relation A Input	Relation A Output	Relation B Input	Relation B Output
2	12	2	7
2	<input type="text" value="12"/>	2	<input type="text" value="10"/>
5	<input type="text" value="16"/>	5	21
<input type="text" value="7"/>	17	<input type="text" value="7"/>	<input type="text" value="25"/>
9	22	9	34

(1 Point) Student completed both tables with the correct input and output values with the following assumptions:

Relation A Input	Relation A Output	Relation B Input	Relation B Output
2	12	2	7
2	12	2	x
5	v	5	21
w	17	y	z
9	22	9	34

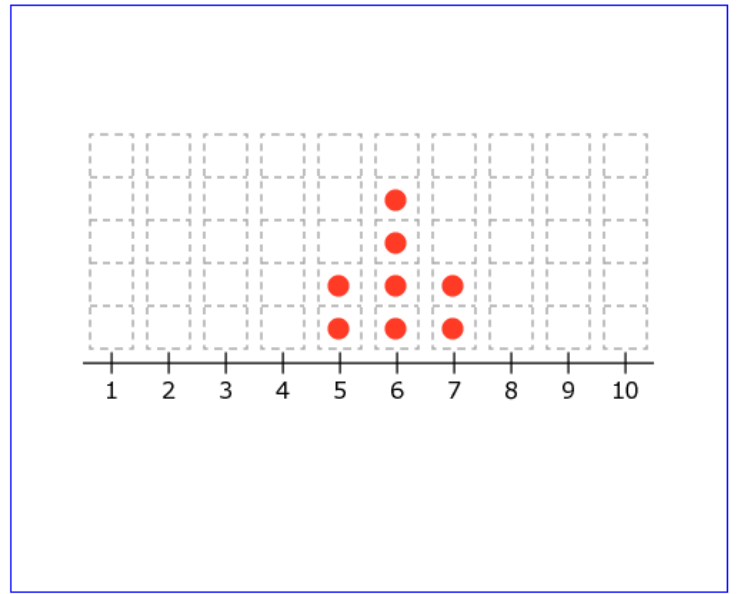
- w is not 2 or 9
- $w = 5$ if $v = 17$
- otherwise, w and v can have any value
- if $x = 7$, then $(y, z) = (2, \text{not } 7), (5, \text{not } 21)$ or $(9, \text{not } 34)$
- if $x \neq 7$, then y and z can have any value

Cluster	Content Standard	DOK
A1.S-ID.A	A1.S-ID.A.2	3

A dot plot is shown.



Click above the number line to create a dot plot with the same number of data points, the same mean, and a smaller range.



(1 Point) Student created any correct dot plot with 8 points, a mean of 6, and a range less than 7.

Cluster	Content Standard	DOK
A1.A-SSE.B	A1.A-SSE.B.3	1

The equation of a function is given.

$$f(x) = (2x - 3)(3x + 4)$$

What is one of the zeros of the function?

$$x = \frac{3}{2}$$

←	→	↶	↷	✕
1	2	3		
4	5	6		
7	8	9		
	0			
.	-	$\frac{\square}{\square}$		

(1 Point) Student entered $\frac{3}{2}$, $-\frac{4}{3}$, or any equivalent value for x .

Cluster	Content Standard	DOK
A1.F-IF.B	A1.F-IF.B.4	2

A function is given.

$$f(x) = \begin{cases} x^2 + 4, & x < 0 \\ \frac{1}{2}x + 8, & 0 \leq x \leq 7 \\ -x^2 + 4x + 5, & x > 7 \end{cases}$$

What is the y-intercept value of the function?

8

← → ↶ ↷ ✖

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

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