AzMERIT | Arizona's Statewide Achievement Assessment for English Language Arts and Mathematics

Computer-Based Sample Test Scoring Guide Grade 3 Math

AzMERIT

Updated January 24, 2017

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

Arizona Department of Education

AIR® American Institutes for Research®

About the Sample Test Scoring Guide

The AzMERIT Sample Test Scoring Guides provide details about the items, student response types, correct responses, and related scoring considerations for AzMERIT Sample Test items.

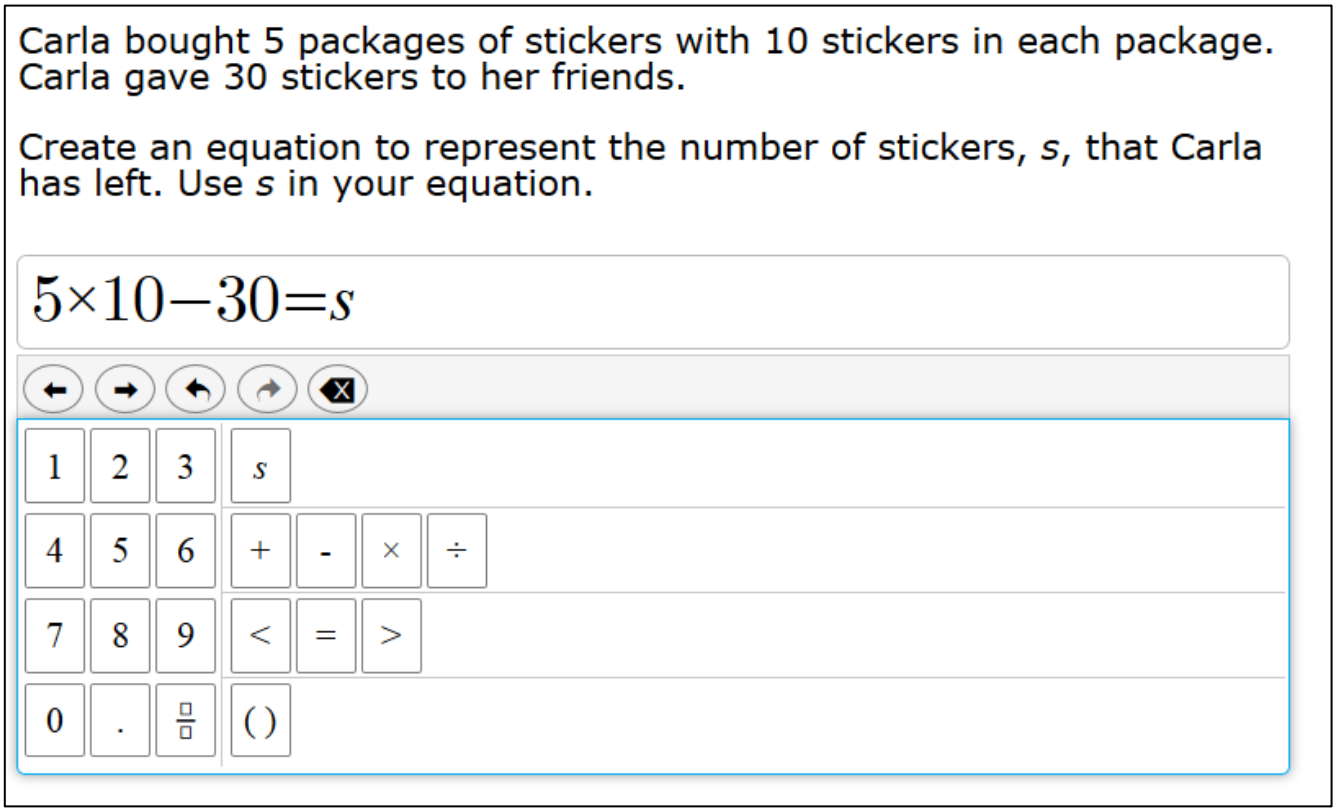
Within this guide, each item is presented with the following information:

- Item number
- Domain
- Cluster
- Content Standard
- Math Practices
- 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

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 Sample Test

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
1	OABT	3.OA.D	3.OA.D.8	1, 2, 4, 5	3



(1 Point) Student entered $5 \times 10 - 30 = s$ or any equivalent equation.

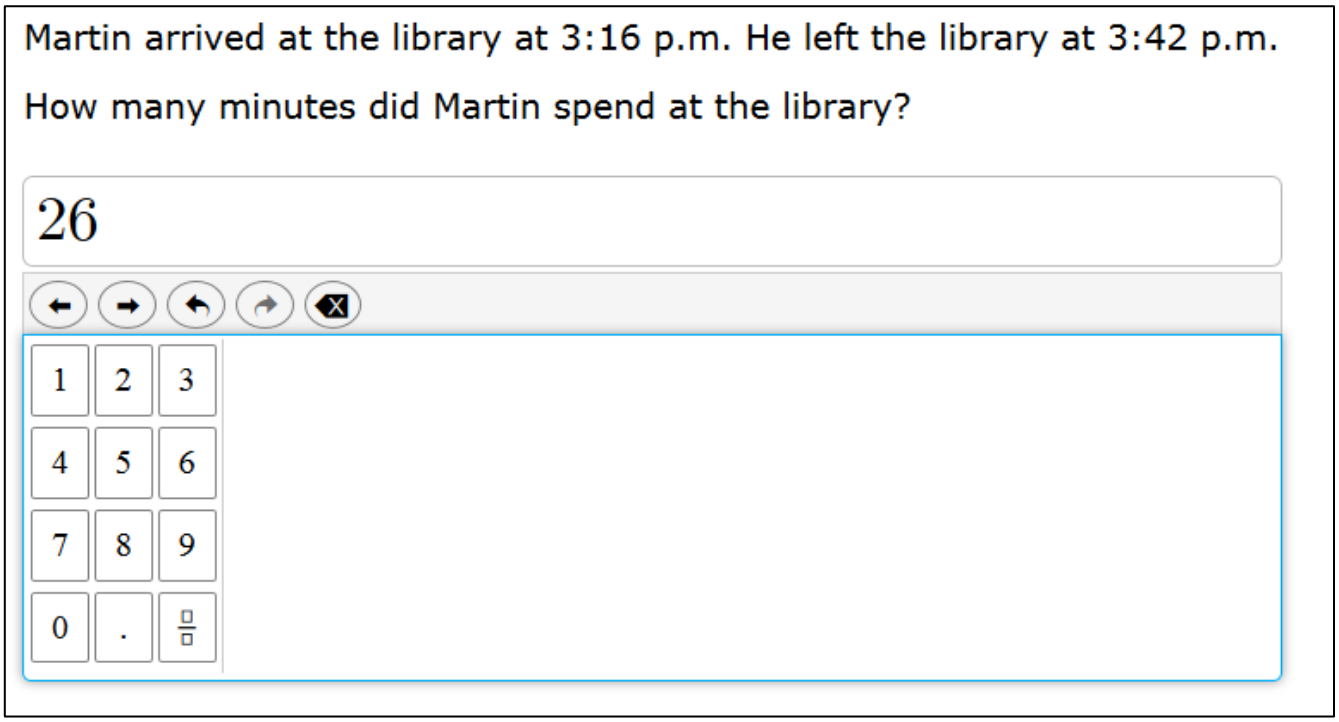
Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
2	OABT	3.NBT.A	3.NBT.A.1	5, 7, 8	2

Select all of the numbers that round to 710 when rounded to the nearest ten.

- [ ] 700
- [ ] 703
- [x] 706
- [x] 708
- [ ] 720

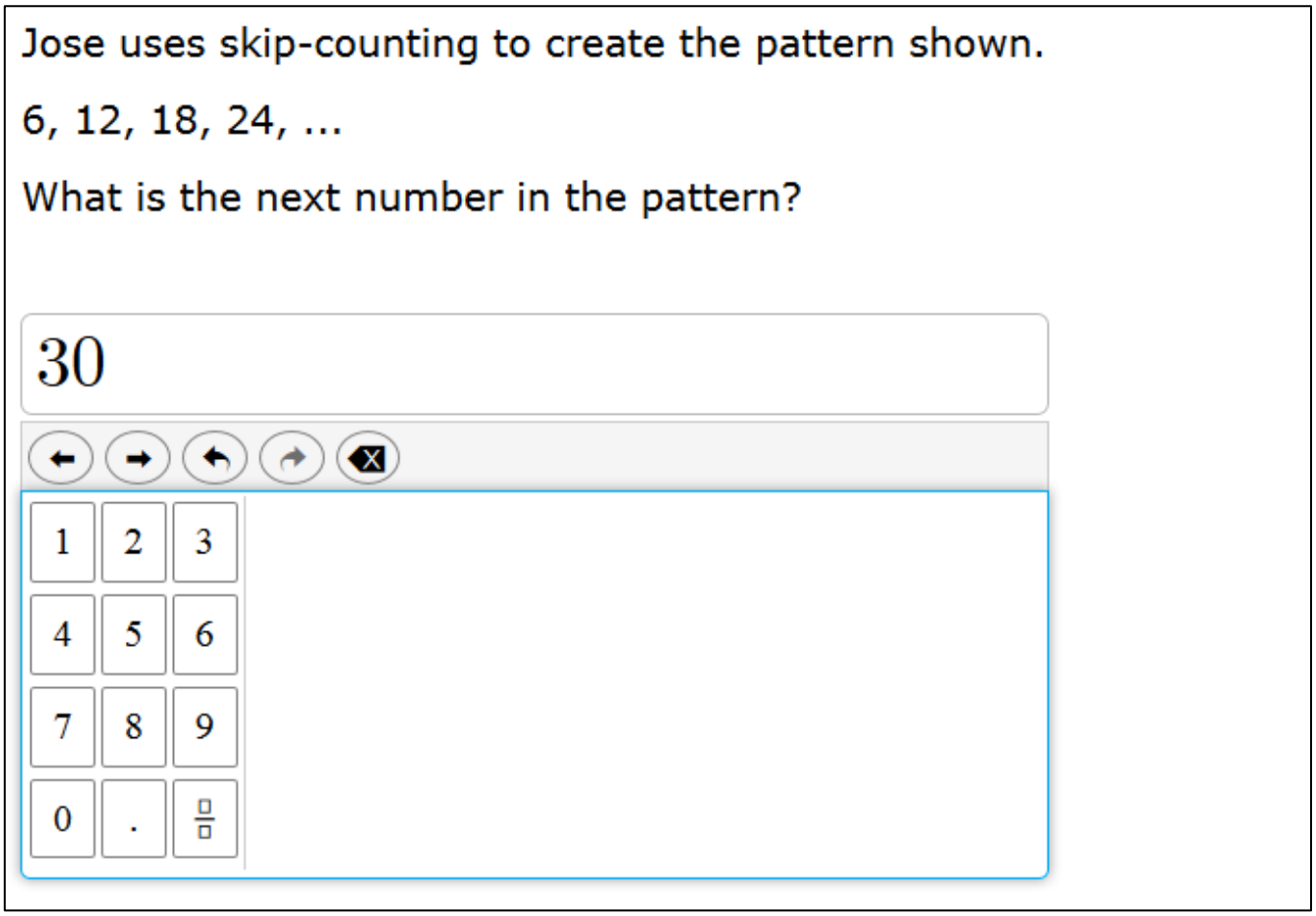
(1 Point) Student checked both correct options**.**

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
3	MDG	3.MD.A	3.MD.A.1	1, 4, 6	2



(1 Point) Student entered 26 or any equivalent value.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
4	OABT	3.OA.D	3.OA.D.9	1, 2, 3, 6, 7	2

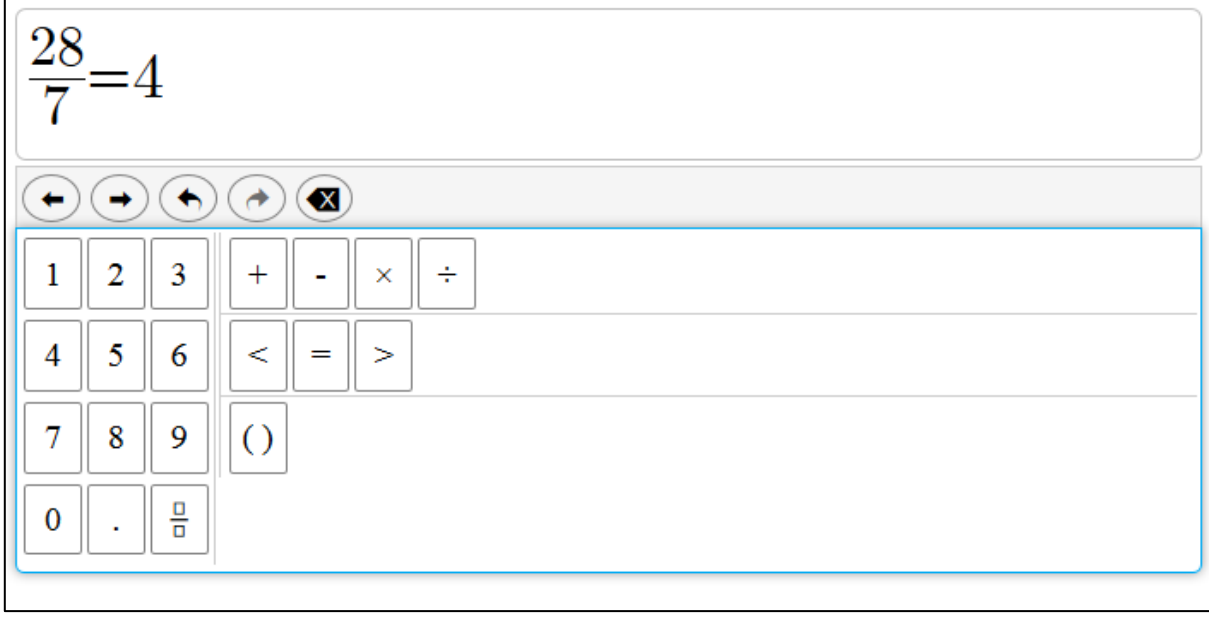


(1 Point) Student entered 30 or any equivalent value.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
5	OABT	3.OA.A	3.OA.A.3	1, 4, 7	3

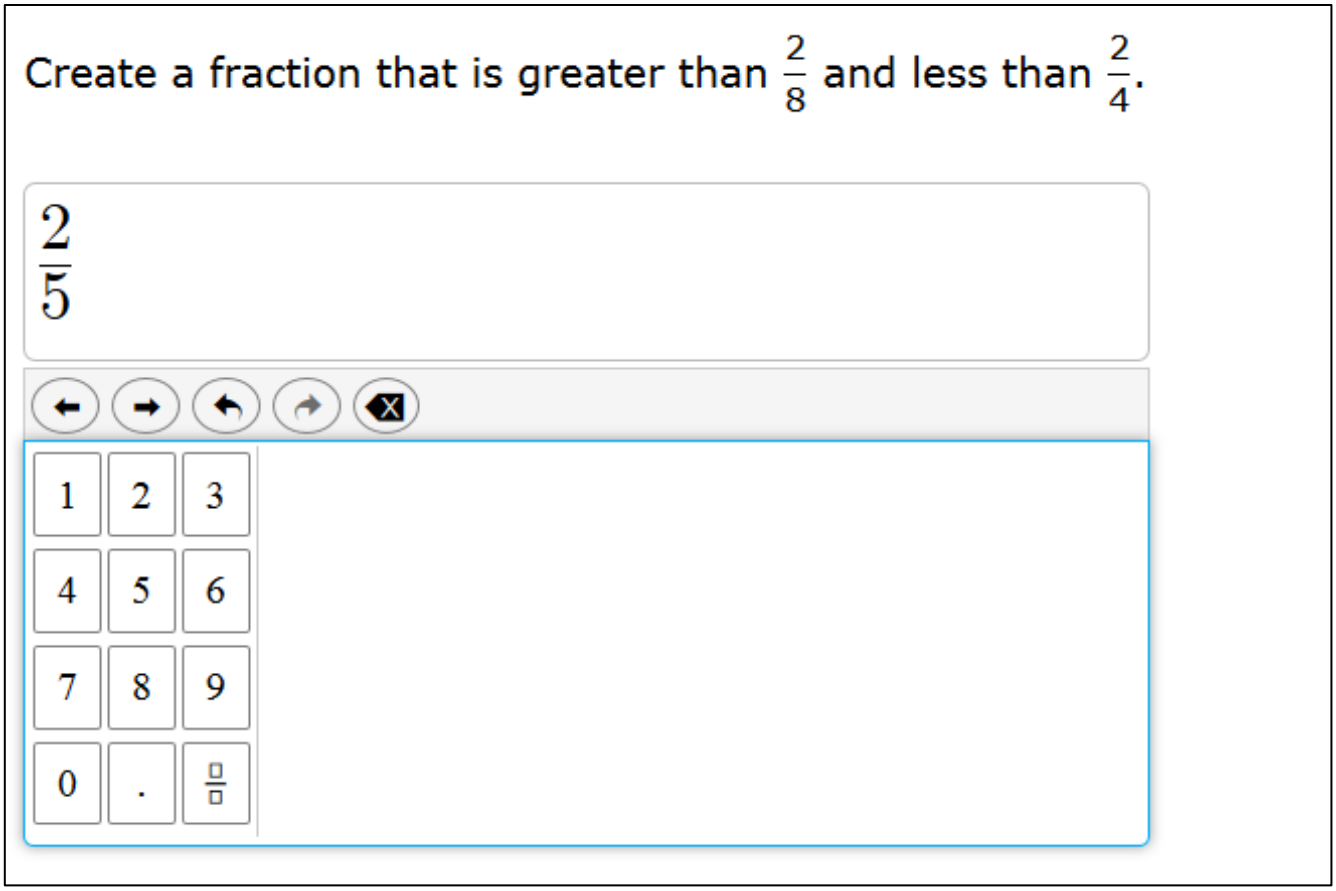
Henry has 28 pennies. He wants to split the pennies into equal piles.

Create a division equation that models a way he could do this.



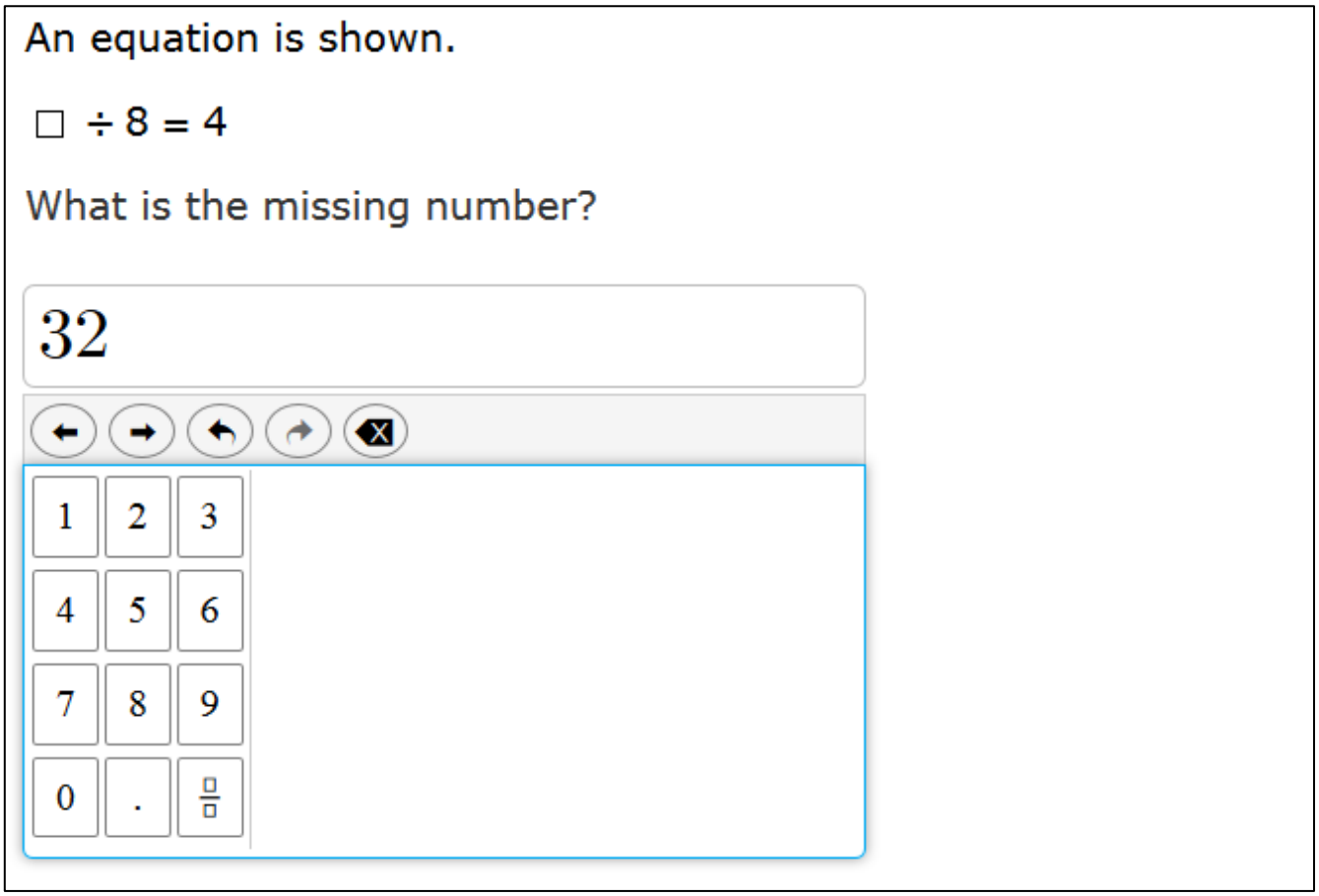
(1 point) Student entered $\frac{28}{7} = 4$ or any equation in the form $\frac{28}{a} = b$ or $b = \frac{28}{a}$, where a and b are positive integers.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
6	NOF	3.NF.A	3.NF.A.3	1, 2, 3, 4, 6, 7, 8	3



(1 point) Student entered $\frac{2}{5}$ or any fraction greater than $\frac{2}{8}$ and less than $\frac{2}{4}$.

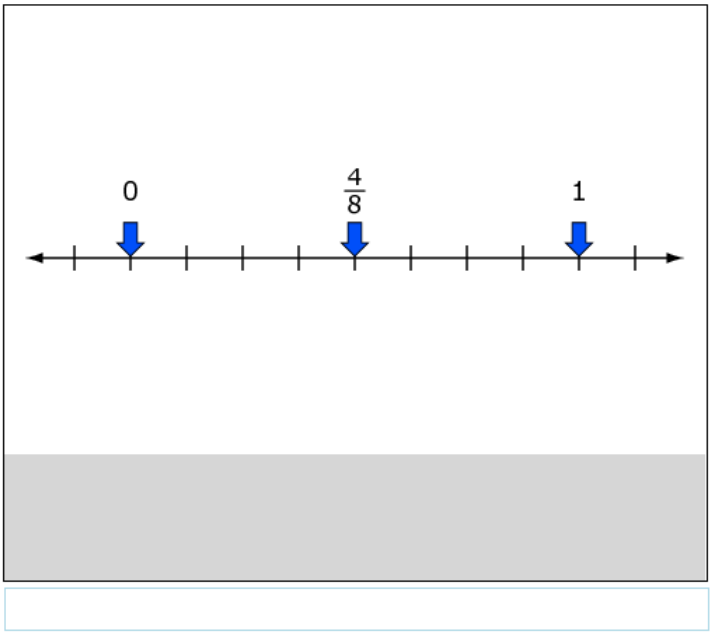
Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
7	OABT	3.OA.A	3.OA.A.4	1, 2, 6, 7	2



(1 Point) Student entered 32 or any equivalent value.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
8	NOF	3.NF.A	3.NF.A.2	1, 4, 7	3

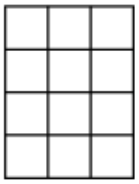
Drag 0, 1, and $\frac{4}{8}$ to correct locations on the number line.



(1 point) Student created the correct number line.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
9	MDG	3.MD.C	3.MD.C.6	2, 4, 5, 6	2

The diagram shows the floor of Graham's closet.



= 1 square foot

What is the area, in square feet, of the floor of Graham's closet?

12

1 2 3
4 5 6
7 8 9
0 .

(1 point) Student entered 12 or any equivalent value.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
10	MDG	3.G.A	3.G.A.1	5, 6, 7	2

Two statements that describe a shape are shown.

- All of the sides have the same length.
- It is a quadrilateral.

Select all of the shapes for which both statements are always true.

- [x] square
- [ ] hexagon
- [x] rhombus
- [ ] rectangle
- [ ] equilateral triangle

(1 Point) Student selected the two correct options.

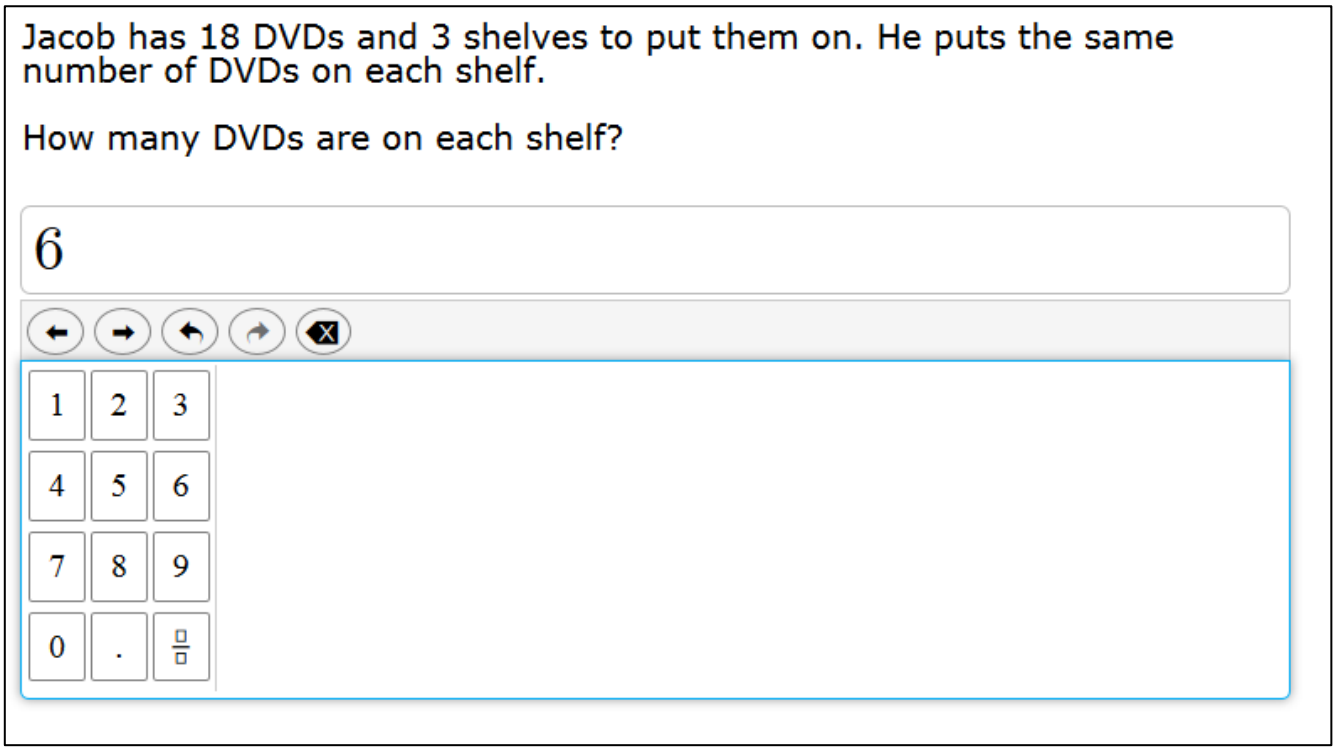
Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
11	OABT	3.NBT.A	3.NBT.A.2	2, 7, 8	2

Enter a number to complete each equation.

9 –	3	= 6
90 –	30	= 60
900 –	300	= 600

(1 point) Student entered three correct values.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
12	OABT	3.OA.A	3.OA.A.3	1, 4, 7	2



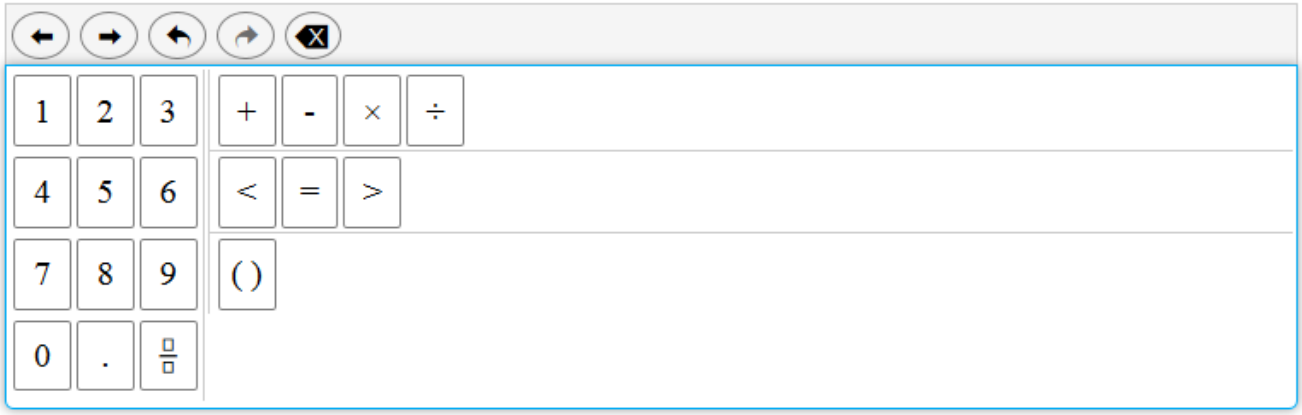
(1 point) Student entered 6 or any equivalent value.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
13	OABT	3.OA.A	3.OA.A.3	1, 4, 7	3

Tommy has 15 toy cars. He wants to put the toy cars into equal groups. He puts more than 1 car in each group.

Create a multiplication or division equation that models the number of cars in each group.

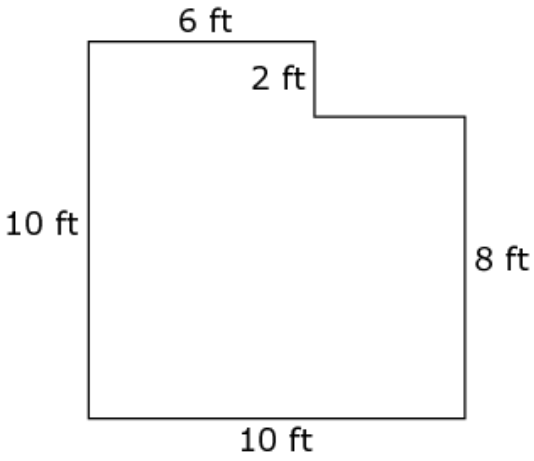
$\frac{15}{3}=5$



(1 point) Student entered $\frac{15}{3} = 5$ or any equation in the form $\frac{15}{a} = b$ or $b = \frac{15}{a}$, where a and b are both positive integers.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
14	MDG	3.MD.C	3.MD.C.7	1, 2, 4, 5, 6	3

A shape is shown.



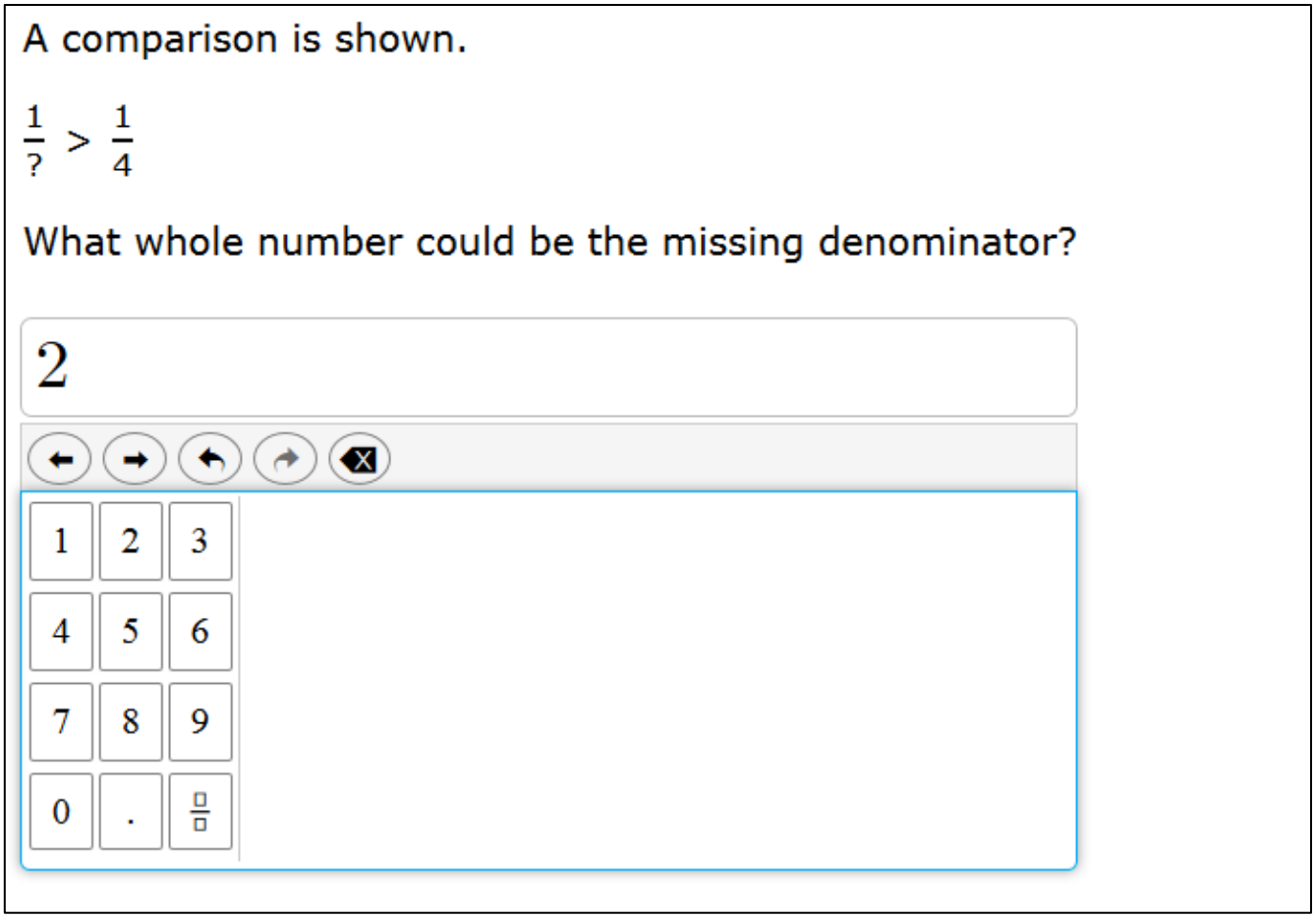
What is the area, in square feet, of the shape?

92

1 2 3
4 5 6
7 8 9
0 .

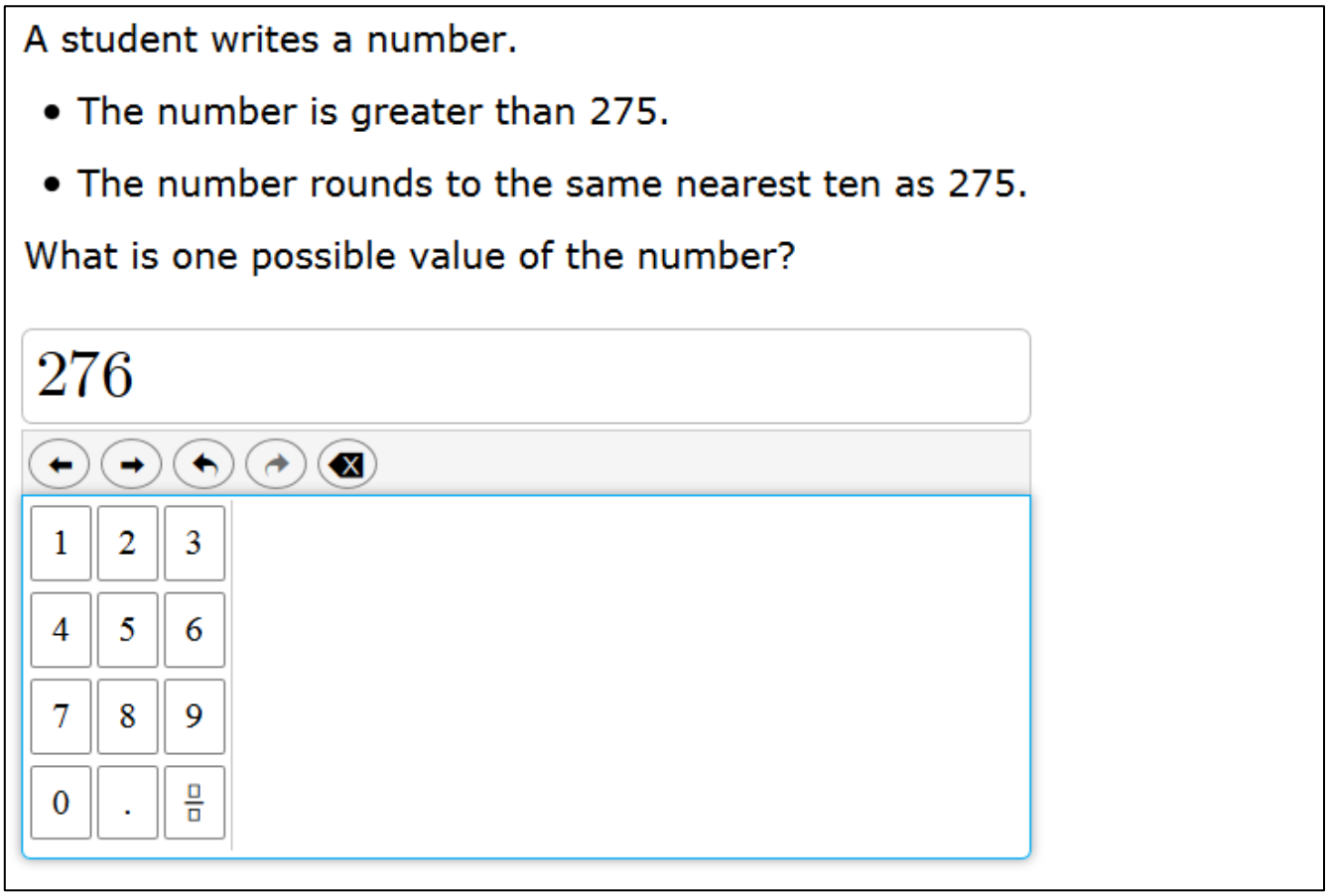
(1 point) Student entered 92 or any equivalent value.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
15	NOF	3.NF.A	3.NF.A.3	1, 2, 3, 4, 6, 7, 8	2



(1 point) Student entered a value of 1, 2, or 3.

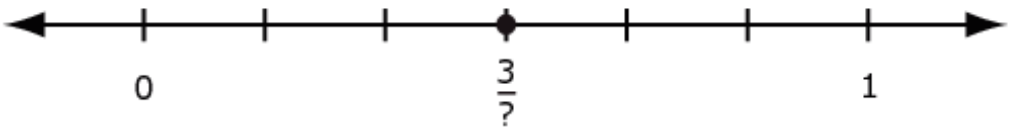
Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
16	OABT	3.NBT.A	3.NBT.A.1	5, 7, 8	2



(1 point) Student entered 276 or any value greater than 275 and less than 285.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
17	NOF	3.NF.A	3.NF.A.2	1, 4, 7	2

A number line is shown.



What is the missing value?

Ⓐ 1

Ⓑ 2

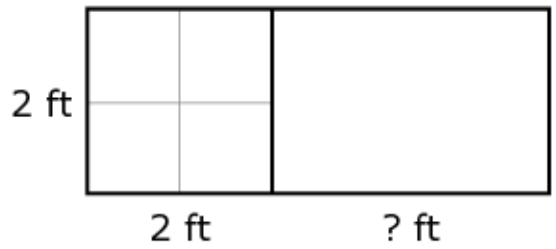
Ⓒ 3

● 6

(1 Point)

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
18	MDG	3.MD.C	3.MD.C.7	1, 2, 4, 5, 6	3

A figure is shown.



The total area of the figure is 10 square feet.

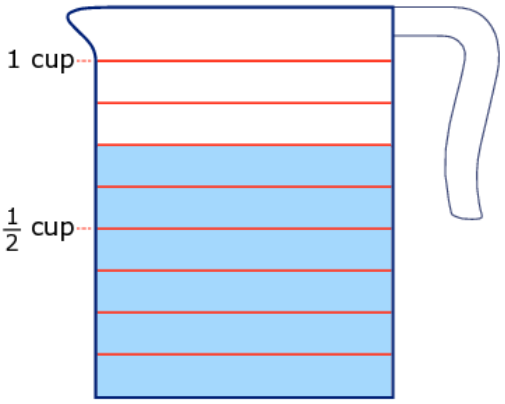
How many feet is the length of the missing measurement?

(1 point) Student entered 3 or any equivalent value.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
19	NOF	3.NF.A	3.NF.A.3	1, 2, 3, 4, 6, 7, 8	2

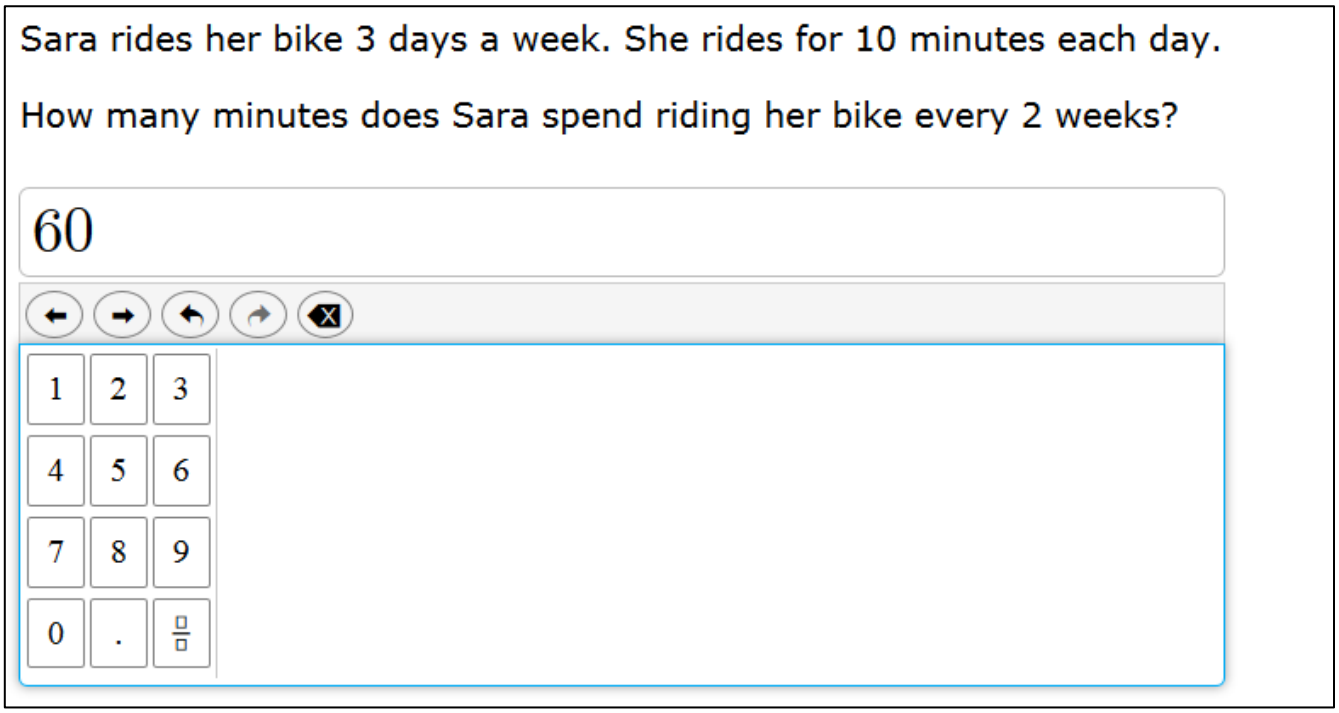
Alex needs $\frac{3}{4}$ cup of water for a science experiment. He uses the cup shown to measure the water.

Click in a section of the cup to show how much water Alex needs.



(1 point) Student created the correct equivalent fraction.

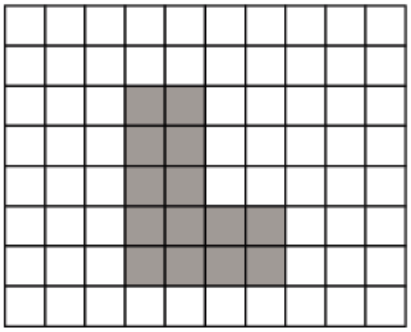
Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
20	OABT	3.OA.D	3.OA.D.8	1, 2, 4, 5	2



(1 point) Student entered 60 or any equivalent value.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
21	MDG	3.MD.C	3.MD.C.5	2, 4, 5, 6	1

The shaded part of the figure shown has an area of 14 square units.



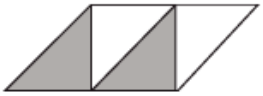
What does a ▢ represent?

- ● one square unit
- Ⓑ two square units
- Ⓒ four square units
- Ⓓ fourteen square units

(1 Point)

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
22	MDG	3.G.A	3.G.A.2	2, 4, 5	1

A parallelogram is shown. Part of the parallelogram is shaded.



What fraction is represented by the shaded part of the parallelogram?

$\frac{1}{2}$

1 2 3
4 5 6
7 8 9
0 .

(1 point) Student entered $\frac{1}{2}$ or $\frac{2}{4}$.

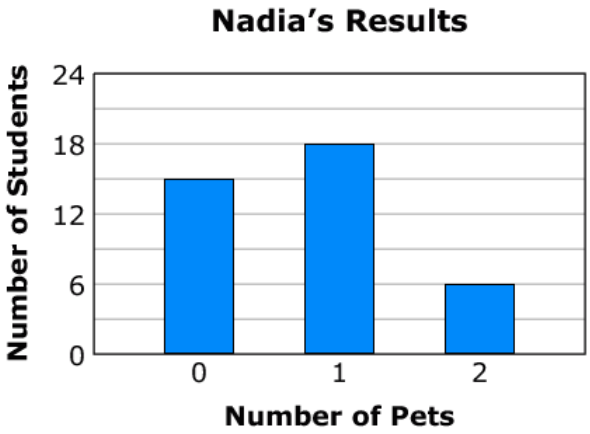
Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
23	MDG	3.MD.B	3.MD.B.3	1, 4, 6, 7	2

Nadia asks each student in her class how many pets he or she has. The results are shown in the table.

Nadia's Results

Number of Pets	Number of Students
0	15
1	18
2	6

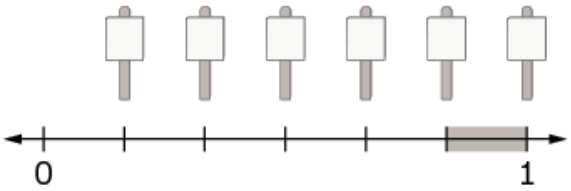
Click between the lines to create a bar graph that shows Nadia's results.



(1 point) Student created a correct graph.

Item Number	Domain	Cluster	Content Standard	Math Practices	DOK
24	NOF	3.NF.A	3.NF.A.2	1, 4, 7	2

There are 6 signs that are placed an equal distance from each other along a hiking path, as shown. The shaded portion represents a section of the path that is closed for repairs.



What fraction of the path is closed for repairs?

$\frac{1}{6}$

1 2 3
4 5 6
7 8 9
0 .

(1 point) Student entered $\frac{1}{6}$ or any equivalent fraction.