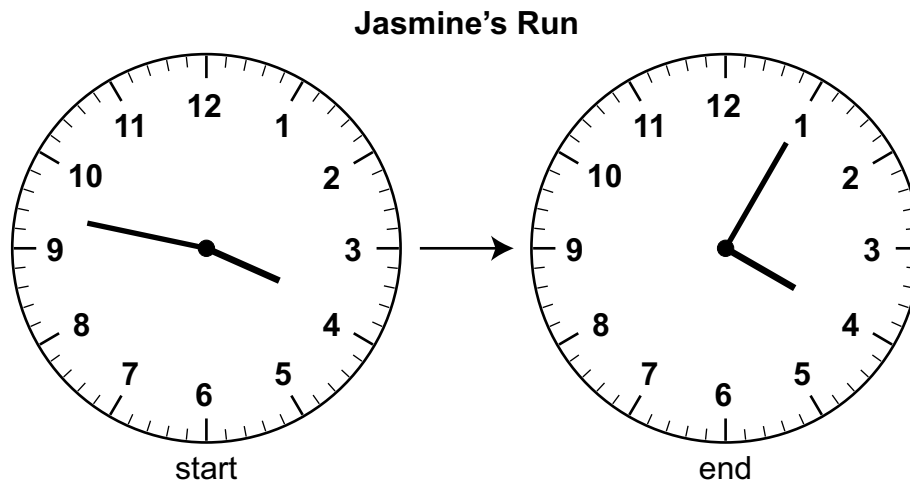WISCONSIN DEPARTMENT OF
Public Instruction

Mathematics
Item Sampler
Grade 3

Answer the items below.

1. Jasmine went for a run after school. The clocks show the time she started and ended her run.

Jasmine's Run

start   end

How long did Jasmine run?

A. 18 minutes

B. 42 minutes

C. 78 minutes

D. 102 minutes

Go on to the next page.

2. Andy needs to find the value of n in the division equation shown.
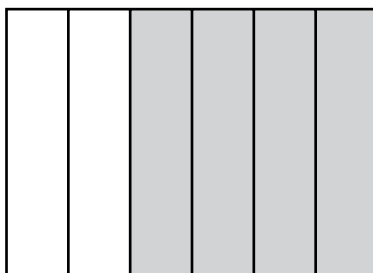
$$n \div 9 = 3$$

Determine whether Andy could use each of the multiplication equations in the table to find the value of n.

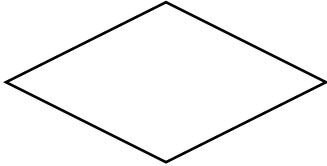|	Yes	No
$n \times 3 = 9$		
$3 \times 9 = n$		
$n \times 9 = 3$		
$9 \times 3 = n$		

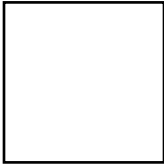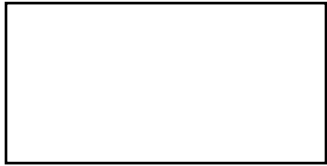**3.** What is 604 − 286?

4. A figure is shown.

Which fraction represents the shaded area of the figure?

A. $\dfrac{2}{6}$

B. $\dfrac{2}{4}$
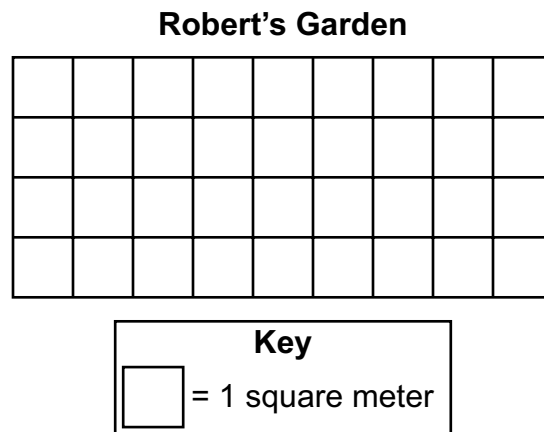
C. $\dfrac{4}{6}$

D. $\dfrac{4}{2}$

Go on to the next page.

5. Three shapes are shown in the table. Determine whether each shape is a rhombus, a rectangle, and/or a quadrilateral. Be sure to select **all** of the names that describe each shape.

	Rhombus	Rectangle	Quadrilateral
◇			
□			
▭			

6. A diagram of Robert's garden is shown.

Robert's Garden

Key

☐ = 1 square meter

What is the area, in square meters, of Robert's garden?

A. 13

B. 26

C. 36

D. 40

7. There are 48 students signed up for swimming lessons. The teacher splits the students into 8 equal groups. Which expression could the teacher use to find the number of students in each group?

A. 48 + 8

B. 48 − 8

C. 48 × 8

D. 48 ÷ 8

Go on to the next page.

8. Ben and Gini each drew a rectangle on the sidewalk with chalk. Each person's rectangle is the same size.

Ben colored in $\frac{4}{6}$ of his rectangle. Gini colored in the same amount of her rectangle, as shown.

Ben's Rectangle

Gini's Rectangle

What fraction equivalent to $\frac{4}{6}$ represents the shaded part of Gini's whole rectangle?
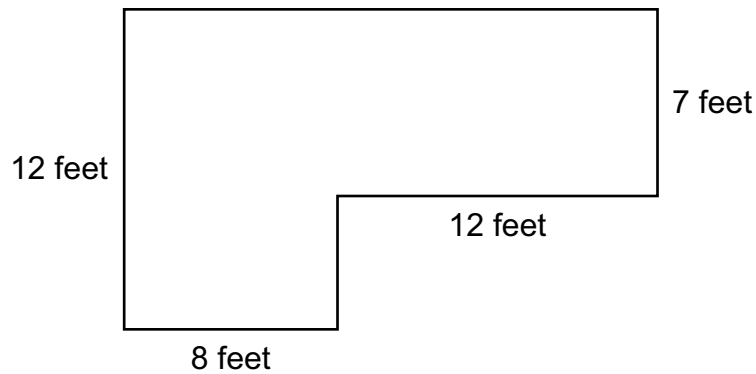
STOP.

STOP.

Answer the items below.

1. Tom is putting a fence around his garden. A diagram of Tom's garden is shown.
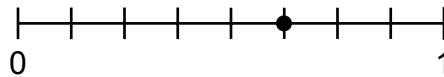
Tom's Garden

12 feet

7 feet

12 feet

8 feet

How many feet of fencing does Tom need for his garden?

A. 39

B. 44

C. 59

D. 64

Go on to the next page.

2. There are 6 bookshelves in Miss Miller's classroom. Each bookshelf has 60 books on it. How many books are on the bookshelves in Miss Miller's classroom?

3. A number line is shown.
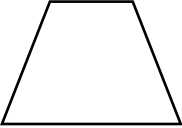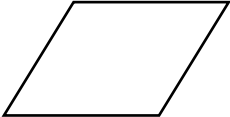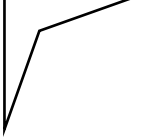
Which fraction represents the point on the number line?

A. $\frac{3}{7}$

B. $\frac{3}{8}$

C. $\frac{5}{7}$

D. $\frac{5}{8}$

Go on to the next page.

4. Determine whether each figure is a quadrilateral or is not a quadrilateral.

	Quadrilateral	Not a Quadrilateral

Go on to the next page.

5. Clara brings 5 boxes of cupcakes to school. Each box contains the same number of cupcakes. There are 3 cupcakes remaining after Clara shares 27 cupcakes with her classmates. How many cupcakes were in each of the boxes Clara brought to school?

  A. 6

  B. 8

  C. 15

  D. 30

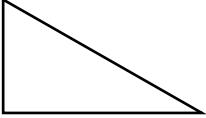**6.** There are 185 books on a bookshelf. Rounded to the nearest ten, how many books are on the bookshelf?

  A. 100

  B. 180

  C. 190

  D. 200

Go on to the next page.

7. Henry draws the shape of his classroom floor on a grid. He divides the shape into 2 rectangles. He then writes the expression shown to find the area of the shape, in square units.

$$(4 \times 6) + (6 \times 3)$$

Draw a line on the grid to divide the shape into Henry's 2 rectangles.

Henry's Classroom Floor

STOP.

STOP.

SUMMARY DATA

Grade 3

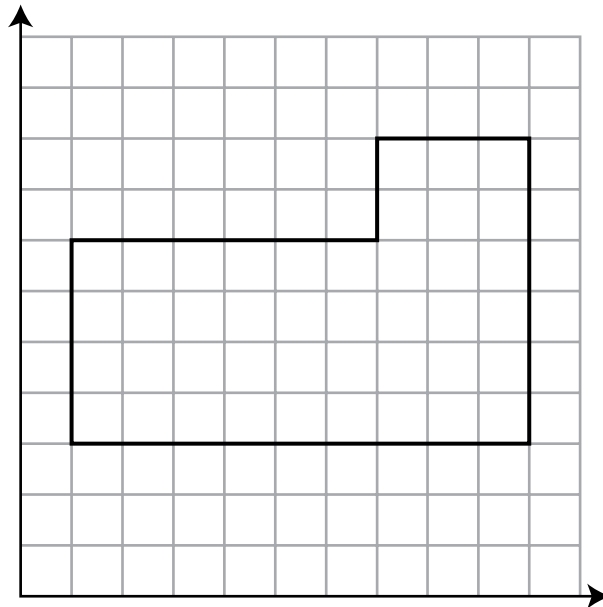| Sample Number	Alignment	Answer Key	Depth of Knowledge	Annotations
Session 1				
1	3.MD.1	A	2	The question asks the student to tell an interval of time. A. Correct. The student adds 18 minutes from the start time to the end time. B. Incorrect. The student subtracts 5 from 47. C. Incorrect. The student adds an extra hour. D. Incorrect. The student adds an extra hour and subtracts 5 from 47.
2	3.OA.6	See Annotations	2	The question asks the student to rewrite a division equation as a multiplication equation. To receive full credit, the student must choose No, Yes, No, Yes.
3	3.NBT.2	Exemplar: 318	1	The question asks the student to find the difference between two numbers. To receive full credit, the student must enter 318 or an equivalent value.

Grade 3

Sample Number	Alignment	Answer Key	Depth of Knowledge	Annotations
4	3.NF.1	C	1	The question asks the student to use a model to show a fraction. A. Incorrect. The student chooses a fraction that shows the unshaded area. B. Incorrect. The student estimates the shaded area. C. Correct. The student chooses a fraction that shows the 4 shaded parts out of the 6 total parts. D. Incorrect. The student compares the shaded parts to the parts not shaded.
5	3.G.1	See Annotations	2	The question asks the student to match shapes. To receive full credit, the student must choose Rhombus and Quadrilateral for the first shape; Rhombus, Rectangle, and Quadrilateral for the second shape; and Rectangle and Quadrilateral for the third shape.
6	3.MD.6	C	1	The question asks the student to find the area of a rectangle. A. Incorrect. The student adds the length and width. B. Incorrect. The student finds the perimeter of the rectangle. C. Correct. The student adds the unit cubes inside the rectangle. D. Incorrect. The student finds the area by using a 4 by 10 rectangle.

Grade 3

Sample Number	Alignment	Answer Key	Depth of Knowledge	Annotations
7	3.OA.2	D	2	The question asks the student to write an expression to find the number of groups. A. Incorrect. The student adds the two numbers. B. Incorrect. The student subtracts the two numbers. C. Incorrect. The student multiplies the two numbers. D. Correct. The student divides the two numbers.
8	3.NF.3a	Exemplar: $\frac{2}{3}$	1	The question asks the student to find an equivalent fraction using models. To receive full credit, the student must enter $\frac{2}{3}$.
Session 2				
1	3.MD.8	D	2	The question asks the student to find the perimeter of a garden. A. Incorrect. The student adds the measurements in the diagram. B. Incorrect. The student adds the measurements in the diagram and the missing side length of 5 feet. C. Incorrect. The student adds the measurements in the diagram and the missing side length of 20 feet. D. Correct. The student adds the measurements in the diagram and the missing side lengths of 20 feet and 5 feet.

Grade 3

Sample Number	Alignment	Answer Key	Depth of Knowledge	Annotations
2	3.NBT.3	Exemplar: 360	2	The question asks the student to find the total number of books given the number of books in each group. To receive full credit, the student must enter 360 or an equivalent value.
3	3.NF.2b	D	1	The question asks the student to show the location of a fraction on a number line. A. Incorrect. The student counts the number of tick marks from 1 as the numerator and the number of tick marks between 0 and 1 as the denominator. B. Incorrect. The student counts the number of tick marks from 1 as the numerator. C. Incorrect. The student counts the number of tick marks between 0 and 1 for the denominator. D. Correct. The student counts the number of tick marks after 0 as the numerator, and the total number of tick marks after 0 and to 1 as the denominator.
4	3.G.1	See Annotations	2	The question asks the student to classify shapes as a quadrilateral or not a quadrilateral. To receive full credit, the student must choose Quadrilateral, Quadrilateral, Not a Quadrilateral, Quadrilateral, Not a Quadrilateral, and Quadrilateral.

Grade 3

Sample Number	Alignment	Answer Key	Depth of Knowledge	Annotations
5	3.OA.8	A	2	The question asks the student to solve a word problem. A. Correct. The student adds 27 plus 3 and divides the sum by 5. B. Incorrect. The student adds 5 and 3. C. Incorrect. The student multiplies 5 and 3. D. Incorrect. The student adds 27 and 3.
6	3.NBT.1	C	1	The question asks the student to round a number to the nearest ten. A. Incorrect. The student rounds down to the nearest hundred. B. Incorrect. The student rounds down to the nearest ten. C. Correct. The student rounds up to the nearest ten. D. Incorrect. The student rounds up to the nearest hundred.
7	3.MD.7d	See Annotations	2	The question asks the student to make rectangles from a given shape. To receive full credit, the student must draw a line inside the floor diagram to make a 4×6 rectangle and a 6×3 rectangle.