RIDE Rhode Island Department of Education

Release of Spring 2025 RICAS Test Items

from the

Grade 3 Mathematics Paper-Based Test

July 2025
Rhode Island Department of Education

This document was prepared by the
Rhode Island Department of Elementary and Secondary Education
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Commissioner

Overview of Grade 3 Mathematics Test

The spring 2025 grade 3 Mathematics test was administered in two formats: a computer-based version and a paper-based version. Most students took the computer-based test. The paper-based test was offered as an accommodation for eligible students who were unable to use a computer. More information can be found on the MCAS Test Administration Resources page at www.doe.mass.edu/mcas/admin.html.

Most of the operational items on the grade 3 Mathematics test were the same, regardless of whether a student took the computer-based version or the paper-based version. In places where a technology-enhanced item was used on the computer-based test, an adapted version of the item was created for use on the paper test. These adapted paper items were multiple-choice, multiple-select, or short-answer items that tested the same Mathematics content and assessed the same standard as the technology-enhanced item.

This document displays released items from the paper-based test. Released items from the computer-based test are available on the RICAS Resource Center website at ricas.onlinehelp.cognia.org/released-items/.

Test Sessions and Content Overview

The grade 3 Mathematics test was made up of two separate test sessions. Each session included selected-response, short-answer, and constructed-response questions. On the paper-based test, the selected-response questions were multiple-choice items and multiple-select items, in which students select the correct answer(s) from among several answer options.

Standards and Reporting Categories

The grade 3 Mathematics test was based on standards in the five domains for grade 3 in the *Massachusetts Curriculum Framework for Mathematics* (2017). The five domains are listed below.

- Operations and Algebraic Thinking
- Number and Operations in Base Ten
- Number and Operations—Fractions
- Measurement and Data
- Geometry

The *Massachusetts Curriculum Framework for Mathematics* is available on the Department website at www.doe.mass.edu/frameworks/current.html.

Mathematics test results are reported under five MCAS reporting categories, which are identical to the five framework domains listed above.

The tables at the conclusion of this document provide the following information about each released and unreleased operational item: reporting category, standard(s) covered, item type, and item description. The correct answers for released selected-response and short-answer questions are also displayed in the released item table.

Reference Materials and Tools

Each student taking the grade 3 Mathematics test was provided with a ruler.

During both Mathematics test sessions, the use of authorized bilingual word-to-word dictionaries and glossaries was allowed for students who are currently or were ever reported as English learners. No calculators, other reference tools, or materials were allowed.

Grade 3 Mathematics
SESSION 1

This session contains 10 questions.

*You may **not** use a calculator during this session.*

Directions

Read each question carefully and then answer it as well as you can. You must record all answers in this Test & Answer Booklet.

For some questions, you will mark your answers by filling in the circles in your Test & Answer Booklet. Make sure you darken the circles completely. Do not make any marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

For other questions, you will need to fill in an answer grid. Directions for completing questions with answer grids are provided on the next page.

If a question asks you to show or explain your work, you must do so to receive full credit. Write your response in the space provided. Only responses written within the provided space will be scored.

Directions for Completing Questions with Answer Grids

1.   Work the question and find an answer.

2.   Enter your answer in the answer boxes at the top of the answer grid.

3.   Print only one number or symbol in each box. Do not leave a blank box in the middle of an answer.

4.   Under each answer box, fill in the circle that matches the number or symbol you wrote above. Make a solid mark that completely fills the circle.

5.   Do not fill in a circle under an unused answer box.

6.   If you need to change an answer, be sure to erase your first answer completely.

7.   See below for examples of how to correctly complete an answer grid.

Examples

1 A teacher wrote a word problem that could be solved using this expression.

$$8 \times 2$$

Which of these could be the teacher's word problem?

Ⓐ There were 8 baskets. There were 2 apples in each basket. What is the total number of apples in all of the baskets?

Ⓑ There were 8 apples. The apples were equally divided between 2 baskets. What is the total number of apples in each basket?

Ⓒ There were 8 apples in a basket. A student put 2 more apples in the basket. What is the total number of apples in the basket now?

Ⓓ There were 8 apples in a basket. A chef used 2 of the apples in the basket to make a sauce. What is the total number of apples in the basket now?

2 There are 87 cars in a large parking lot and 42 cars in a small parking lot.

Which expression has a sum that is **closest** to the total number of cars in both parking lots?

Ⓐ 80 + 40

Ⓑ 90 + 40

Ⓒ 90 + 50

Ⓓ 100 + 50

3 A division equation is shown.

$$70 \div 10 = \boxed{?}$$

Which of these multiplication equations could be used to help solve the division equation?

Ⓐ $\boxed{?} = 10 \times 70$ Ⓑ $10 = \boxed{?} \times 7$

Ⓒ $\boxed{?} \times 10 = 7$ Ⓓ $10 \times \boxed{?} = 70$

This question has three parts.

4 Taylor drew this diagram of a rectangle. She labeled the length and the width of the rectangle in centimeters (cm).
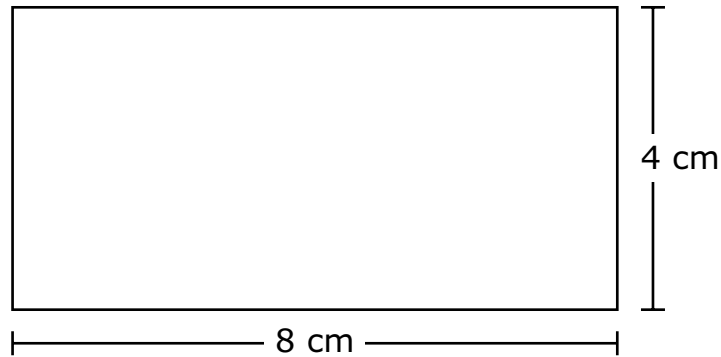
Part A

What is the area, in square centimeters, of Taylor's rectangle? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Part B

What is the perimeter, in centimeters, of Taylor's rectangle? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Part C

Jamie drew a rectangle that has the **same** perimeter as Taylor's rectangle but a **different** area.

What could be the length **and** the width, in centimeters, of Jamie's rectangle? Show or explain how you got your answers.

Enter your answers and your work or explanation in the space provided.

5 When a puppy was five weeks old, it weighed 4 kilograms (kg), as shown.
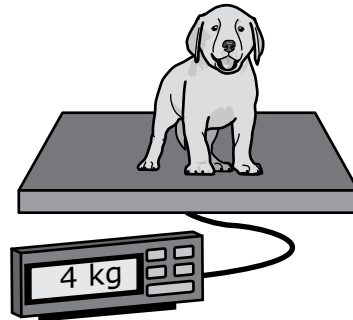
The puppy is now six months old, and it weighs 19 kilograms **more** than it weighed when five weeks old.

Which of these pictures shows the puppy's weight at six months old?

Ⓐ

19 kg

Ⓑ

23 kg

Ⓒ

28 kg

Ⓓ

34 kg
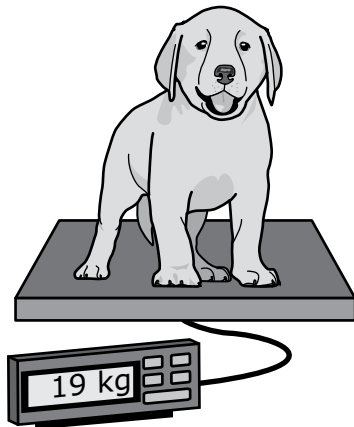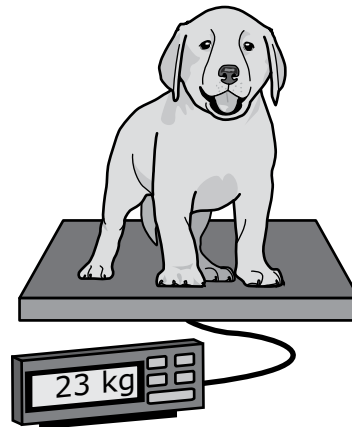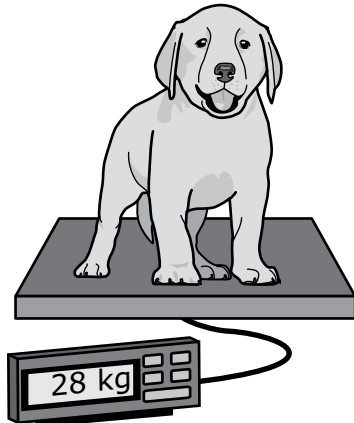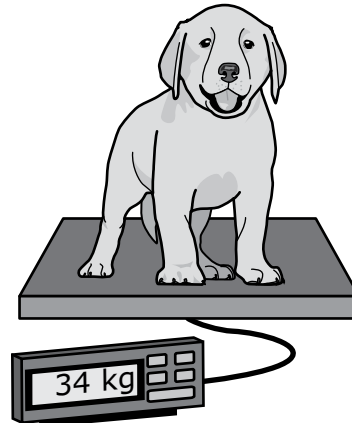
6   The price of a computer, when rounded to the nearest **hundred**, is $500.

Which of these could be the **actual** price of the computer?

Select the **two** correct answers.

Ⓐ $482

Ⓑ $557

Ⓒ $427

Ⓓ $525

Ⓔ $449

This question has three parts.

7 Addison ran a practice lap and then went for a long run.

Part A

Addison ran a distance of $\frac{1}{8}$ mile on her practice lap.

Which point on this number line represents the location of the distance, in miles, Addison ran during her practice lap?
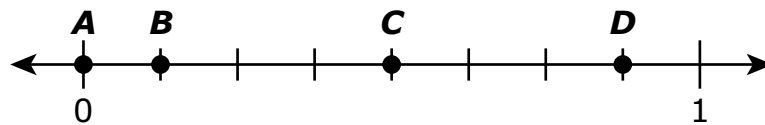
Ⓐ point A

Ⓑ point B

Ⓒ point C

Ⓓ point D

Part B

The point on this number line represents the location of the distance, in miles, Addison ran in the first part of her **long run**.
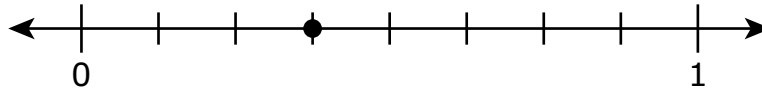
What fraction of a mile did Addison run in the first part of her long run? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

Part C

Addison ran for a total of $\frac{9}{4}$ miles on her long run.

Did Addison run more than 2 miles on her long run? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

**8**   A figure is divided into six equal parts, as shown.
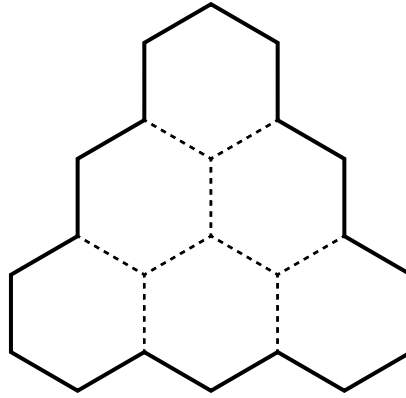
What fraction of the total area of the figure is **one** part?

Ⓐ $\dfrac{0}{6}$

Ⓑ $\dfrac{1}{6}$

Ⓒ $\dfrac{3}{6}$

Ⓓ $\dfrac{6}{6}$

9   Which fraction is equivalent to the number 2?

Ⓐ $\dfrac{0}{2} = 2$

Ⓑ $\dfrac{1}{2} = 2$

Ⓒ $\dfrac{2}{1} = 2$

Ⓓ $\dfrac{2}{2} = 2$

10 Students in an art class chose their favorite coloring tool. This picture graph shows the number of students who chose each tool.

Tool Choices

Coloring Tool	Number of Students
Chalk	✿ ✿ ✿
Crayons	✿ ✿
Markers	✿ ✿ ✿ ✿ ✿
Paint	✿

Key
Each ✿ = 3 students

How many **fewer** students chose paint than chose chalk?

Ⓐ   1

Ⓑ   2

Ⓒ   6

Ⓓ   9

Grade 3 Mathematics
SESSION 2

This session contains 10 questions.

*You may **not** use a calculator during this session.*

Directions

Read each question carefully and then answer it as well as you can. You must record all answers in this Test & Answer Booklet.

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5. Do not fill in a circle under an unused answer box.

6. If you need to change an answer, be sure to erase your first answer completely.

7. See below for examples of how to correctly complete an answer grid.

Examples

11 Find the quotient.

$$28 \div 4$$

Ⓐ 6

Ⓑ 7

Ⓒ 8

Ⓓ 9

12 Which of these shows $\frac{2}{3}$ of the fraction model shaded?

Ⓐ

Ⓑ

Ⓒ

Ⓓ
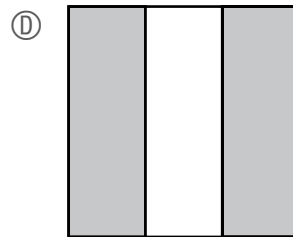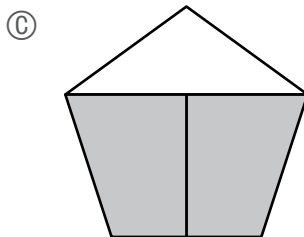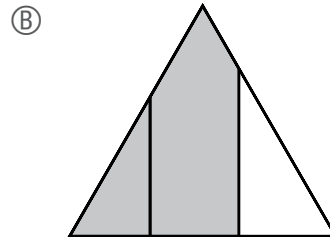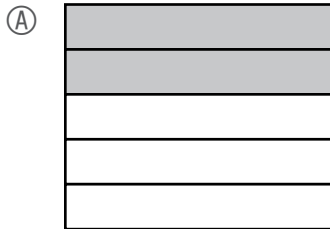
13   The start times for two train rides are shown in this table.

Train Rides

Start Time	End Time
7:15	?
8:30	?

Each train ride lasts 40 minutes.

Which table shows the correct end time for each train?

Ⓐ   **Train Rides**

Start Time	End Time
7:15	7:55
8:30	9:10

Ⓑ   **Train Rides**

Start Time	End Time
7:15	7:45
8:30	9:10

Ⓒ   **Train Rides**

Start Time	End Time
7:15	7:55
8:30	9:00

Ⓓ   **Train Rides**

Start Time	End Time
7:15	7:45
8:30	9:00

14   A group of figures is shown.
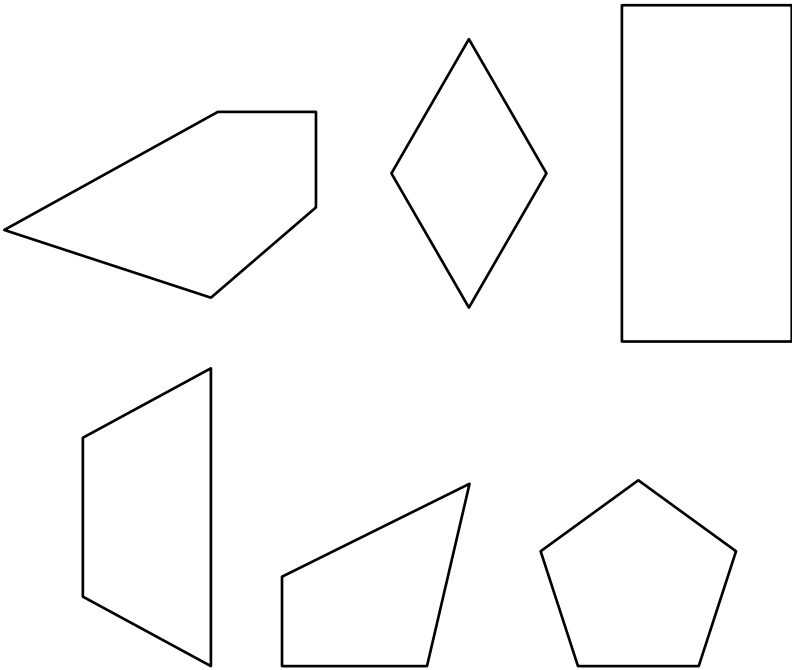
How many of the figures appear to have at least one right angle?

Enter your answer in the answer boxes at the top of the answer grid **and** completely fill the matching circles.

15 Which of these equations are true?

Select the **three** correct answers.

Ⓐ 64 = 8 × 8

Ⓑ 64 = 8 × 9

Ⓒ 7 = 63 ÷ 8

Ⓓ 7 = 63 ÷ 9

Ⓔ 35 ÷ 7 = 5

Ⓕ 35 ÷ 7 = 6

16 A student is making a number pattern. The student starts with an **even** number and then uses the rule "subtract 14" to continue the pattern.

Which list of numbers could be the student's pattern?

Ⓐ 81, 67, 63, 49, 45, . . .

Ⓑ 88, 75, 62, 49, 36, . . .

Ⓒ 93, 79, 65, 51, 37, . . .

Ⓓ 96, 82, 68, 54, 40, . . .

17   A music teacher placed the third-grade students in rows to sing in a concert.

- The students were placed in 4 rows.

- There were 20 students in each row.

What was the total number of third-grade students in the concert?

Enter your answer in the answer boxes at the top of the answer grid **and** completely fill the matching circles.

18   A rectangle is covered with square tiles with no gaps or overlaps. The dimensions of the rectangle, in inches (in.), are shown.
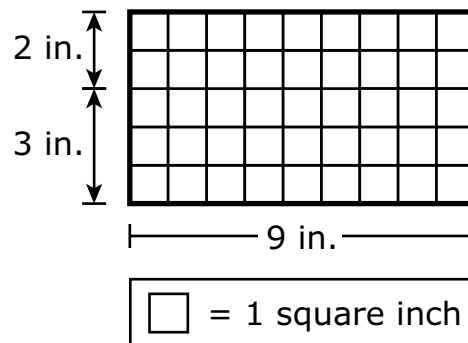
Each tile on the rectangle has an area of 1 square inch.

Which of these expressions shows how to find the area, in square inches, of the rectangle?

Ⓐ   (9 × 2) + 3

Ⓑ   2 × 3 × 9

Ⓒ   (9 × 2) + (9 × 3)

Ⓓ   (2 + 9) × (3 + 9)

19 Shape K is shown.

Shape K
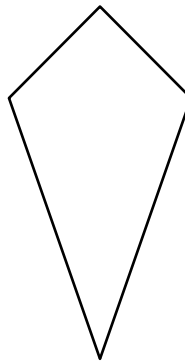
Which of these shapes have the same number of sides as Shape K?

Select the **two** correct answers.

Ⓐ triangle

Ⓑ hexagon

Ⓒ rhombus

Ⓓ trapezoid

Ⓔ pentagon

20 A group of friends spent a total of 90 minutes at the beach.

- They spent 40 minutes swimming.

- They spent 30 minutes building a sand castle.

- They spent the remaining time resting.

Which of these pairs of equations can be used to find m, the number of minutes the friends spent resting?

Ⓐ 40 − 30 = 10
    10 + m = 90

Ⓑ 40 + 30 = 70
    90 − 70 = m

Ⓒ 90 − 40 = 50
    50 + 30 = m

Ⓓ 90 + 30 = 120
    120 − 40 = m

Grade 3 Mathematics
Spring 2025 Released Operational Items

PBT Item No.	Page No.	Reporting Category	Standard	Item Type*	Item Description	Correct Answer (SR)**
1	4	*Operations and Algebraic Thinking*	3.OA.A.1	SR	Determine which real-world word problem can be represented by a given multiplication expression.	A
2	4	*Number and Operations in Base Ten*	3.NBT.A.1	SR	Identify the expression that gives the best estimate for the solution to a word problem by rounding whole numbers to the nearest 10.	B
3	4	*Operations and Algebraic Thinking*	3.OA.B.6	SR	Select a multiplication equation that can be used to solve a given division equation.	D
4	5–6	*Measurement and Data*	3.MD.D.8	CR	Determine the area and perimeter of a rectangle with given dimensions and identify the dimensions of a different rectangle that has the same perimeter but a different area as the given rectangle.	
5	7	*Measurement and Data*	3.MD.A.2	SR	Determine mass by interpreting a scale and solve a one-step word problem with addition.	B
6	8	*Number and Operations in Base Ten*	3.NBT.A.1	SR	In a real-world problem, identify two numbers that, when rounded to the nearest hundred, will equal a given number.	A,D
7	9–10	*Number and Operations–Fractions*	3.NF.A.2	CR	Identify the point that shows the location of a fraction on a given partitioned number line, write the fraction that represents a point on a partitioned number line, and use a number line to explain if a fraction greater than 1 is greater than a given whole number.	
8	11	*Geometry*	3.G.A.2	SR	Given a drawing of a figure divided into equal parts, determine what fraction of the area of the whole figure is one part.	B
9	11	*Number and Operations–Fractions*	3.NF.A.3	SR	Given a set of numbers for the numerator and denominator, create a fraction that is equivalent to a given whole number.	C
10	12	*Measurement and Data*	3.MD.B.3	SR	Solve a one-step "how many less" problem using a given picture graph.	C
11	15	*Operations and Algebraic Thinking*	3.OA.C.7	SR	Fluently divide a two-digit number by a one-digit number.	B
12	15	*Number and Operations–Fractions*	3.NF.A.1	SR	Determine which fraction model represents a given fraction.	D
13	16	*Measurement and Data*	3.MD.A.1	SR	Find end times given start times and elapsed times.	A
14	17	*Geometry*	3.G.A.1	SA	Determine how many shapes in a group of given shapes have a right angle.	3
15	18	*Operations and Algebraic Thinking*	3.OA.A.4	SR	Identify which given division and multiplication equations are true.	A,D,E
16	18	*Operations and Algebraic Thinking*	3.OA.D.9	SR	Given a characteristic of the first number in a pattern and the rule for the pattern, determine which list of numbers could be the numbers in the pattern.	D
17	19	*Number and Operations in Base Ten*	3.NBT.A.3	SA	Solve a word problem by multiplying a single-digit whole number by a multiple of 10.	80
18	20	*Measurement and Data*	3.MD.C.7	SR	Determine the expression that can be used to find the area of a rectangle using the distributive property.	C

PBT Item No.	Page No.	Reporting Category	Standard	Item Type*	Item Description	Correct Answer (SR)**
19	21	*Geometry*	3.G.A.1	SR	Identify which shapes have the same number of sides as a given shape.	C,D
20	22	*Operations and Algebraic Thinking*	3.OA.D.8	SR	Determine which equations can be used to solve a given 2-step word problem.	B

* Mathematics item types are: selected-response (SR), short-answer (SA), and constructed-response (CR).

** Answers are provided here for selected-response and short-answer items only. Sample responses and scoring guidelines for any constructed-response items will be posted to the Department's website later this year.

Grade 3 Mathematics
Spring 2025 Unreleased Operational Items

PBT Item No.	Reporting Category	Standard	Item Type*	Item Description
21	*Number and Operations–Fractions*	3.NF.A.1	SR	Determine the fraction that is represented by a given fraction model.
22	*Operations and Algebraic Thinking*	3.OA.D.9	SR	Determine the rule and find the next number in a given pattern.
23	*Number and Operations–Fractions*	3.NF.A.3	SR	Compare fractions with the same numerator by reasoning about their size.
24	*Geometry*	3.G.A.1	SR	Identify the mathematical names of shapes that share two given attributes.
25	*Operations and Algebraic Thinking*	3.OA.A.2	SR	Determine which equation can be used to solve a given word problem.
26	*Measurement and Data*	3.MD.C.6	SR	Determine the area of a given rectangle by counting the unit squares and partial unit squares.
27	*Operations and Algebraic Thinking*	3.OA.A.1	SR	Determine the expression that can be used to solve a multiplication word problem.
28	*Operations and Algebraic Thinking*	3.OA.C.7	SA	Find the product of three one-digit whole numbers.
29	*Measurement and Data*	3.MD.C.7	SR	Identify the multiplication and addition expressions that can be used to find the area of a rectangle, given a tiled diagram of the rectangle.
30	*Measurement and Data*	3.MD.A.1	SR	Tell time on an analog clock and solve a word problem by adding minutes.
31	*Operations and Algebraic Thinking*	3.OA.A.2	SR	Determine the equation that can be used to solve a given division word problem.
32	*Number and Operations in Base Ten*	3.NBT.A.1	SR	Round three-digit whole numbers to the nearest ten.
33	*Number and Operations in Base Ten*	3.NBT.A.3	SA	Determine the product of a one-digit number and a multiple of 10.
34	*Measurement and Data*	3.MD.C.7	SR	Identify rectangles with given lengths and widths that have a specified area.
35	*Number and Operations in Base Ten*	3.NBT.A.2	CR	Solve word problems involving addition and subtraction with three-digit whole numbers.
36	*Number and Operations–Fractions*	3.NF.A.3	SR	Determine which fraction is equivalent to a given fraction represented by a fraction model.
37	*Operations and Algebraic Thinking*	3.OA.A.3	CR	Solve a word problem with multiplication and determine different numbers of equal groups for a given product.
38	*Measurement and Data*	3.MD.B.4	SR	Identify the line plot that represents a set of data with measurements given in both fractions and mixed numbers.
39	*Number and Operations–Fractions*	3.NF.A.3	SR	Identify the point on a labeled number line that shows the location of a fraction that is equivalent to a given fraction.
40	*Operations and Algebraic Thinking*	3.OA.B.5	SA	Use the distributive property to complete a multiplication equation.

* Mathematics item types are: selected-response (SR), short-answer (SA), and constructed-response (CR).