

VIRGINIA STANDARDS OF LEARNING

GRADE 4 MATHEMATICS

2023 Mathematics Standards of Learning

Practice Item Set

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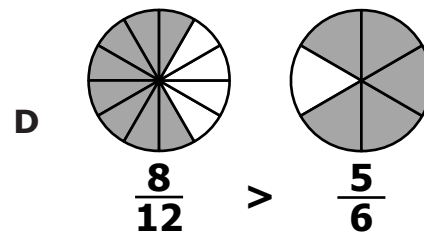
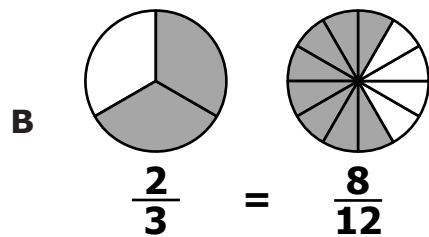
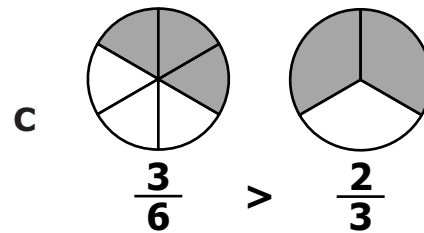
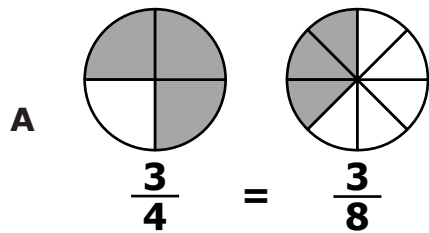
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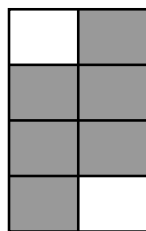
Questions 1–5 are in the non-calculator section. Questions in this section may not be answered with a calculator.

Questions 6–18 are in the calculator section. A calculator may be used with questions in this section.

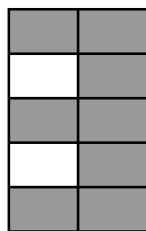
- 1 Each circle shown is the same size. Which correctly compares the fractions represented by the shaded regions of each circle?



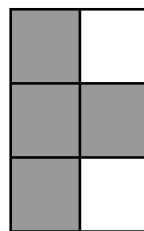
- 2 Each model shown is shaded to represent a fraction. Each model is the same size.



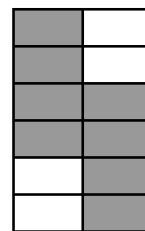
Model 1



Model 2



Model 3



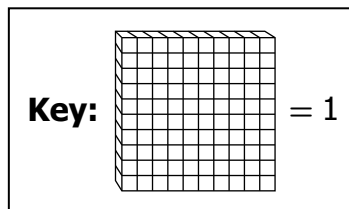
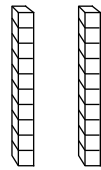
Model 4

Which two models appear to have equivalent fractions shaded?

- F Model 1 and Model 3
 G Model 2 and Model 4
 H Model 1 and Model 2
 J Model 3 and Model 4

3 Model X represents a number.

Model X



Which fraction and decimal are equivalent to the number represented by Model X ?

A $\frac{8}{8}$ and 0.25

C $\frac{1}{5}$ and 1.5

B $\frac{2}{10}$ and 2.10

D $\frac{1}{5}$ and 0.2

4 Which estimate best describes the value of

$$29\frac{1}{3} - 13\frac{2}{3}?$$

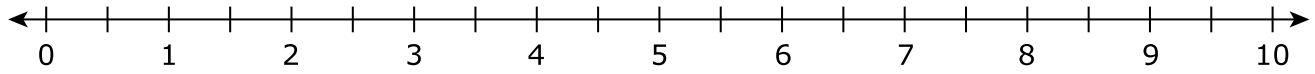
F A little less than 10

G A little less than 16

H A little more than 16

J A little more than 20

- 5 James needs $\frac{1}{2}$ foot of string for each bracelet he makes. He will make 5 bracelets.**



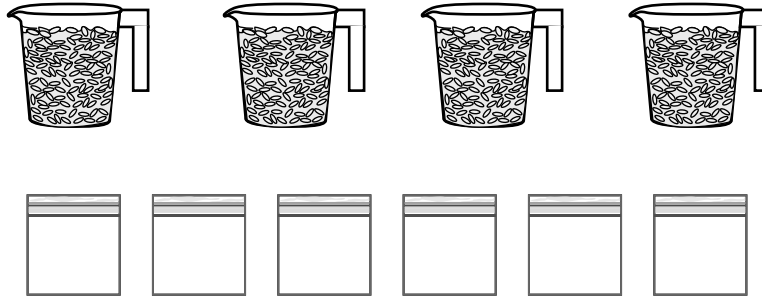
What is the total length of string James needs to make 5 bracelets?

- A** $\frac{2}{5}$ foot
- B** $2\frac{1}{2}$ feet
- C** $5\frac{1}{2}$ feet
- D** 10 feet

The non-calculator section of the practice item set ends here.

A calculator may be used with questions in the next section.

- 6** A cook will pour 4 cups of uncooked rice into 8 bags. The cook will pour the same amount of rice into each bag.



Which division statement best represents this situation?

- F** $4 \div 8 = \frac{4}{8}$ cup of rice in each bag
- G** $4 \div 8 = \frac{8}{4}$ cups of rice in each bag
- H** $8 \div 4 = \frac{4}{8}$ cup of rice in each bag
- J** $8 \div 4 = \frac{8}{4}$ cups of rice in each bag

7 Which group can be represented by the division statement shown?

$$\frac{4}{5} = 4 \div 5$$

Group A

5 people each making 4 sandwiches

A

The diagram shows five rectangular boxes arranged in two rows: three in the top row and two in the bottom row. Each box contains a stick figure at the top and four small ovals (representing sandwich ingredients) in a horizontal row below it.

Group C

5 people sharing 4 sandwiches equally

C

The diagram shows five stick figures arranged in a horizontal row. Below them are four sandwiches, each represented by two ovals with a line through the middle.

Group B

4 people each making 5 sandwiches

B

The diagram shows four rectangular boxes arranged in a 2x2 grid. Each box contains a stick figure at the top and five small ovals in a horizontal row below it.

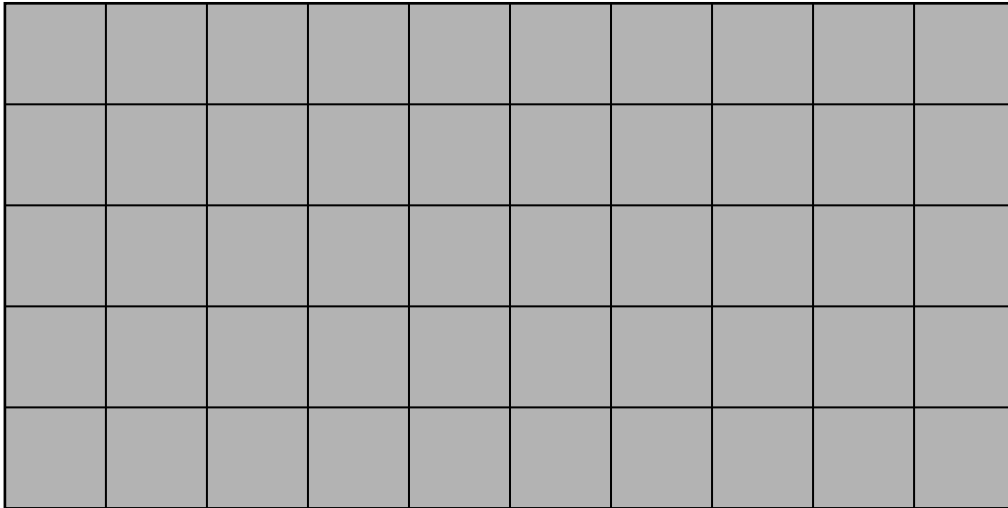
Group D

4 people sharing 5 sandwiches equally

D

The diagram shows four stick figures arranged in a horizontal row. Below them are five sandwiches, each represented by two ovals with a line through the middle.

- 8** The array shown represents a number. It has 5 rows and 10 columns.



Which list shows all the factor pairs for this number?

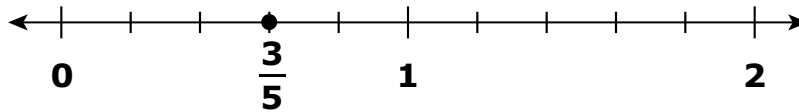
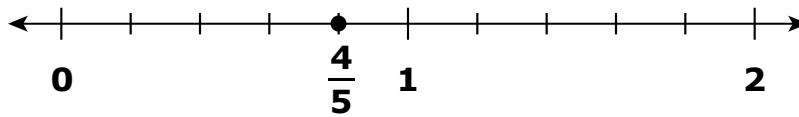
F 5×10
 1×50

H 1×50
 2×25
 5×10

G 10×5
 5×10

J 5×10
 10×5
 2×25
 25×2

- 9 Cindy rode her bike $\frac{4}{5}$ of a mile. Wyatt rode his bike $\frac{3}{5}$ of a mile.**



What is the total distance Cindy and Wyatt rode their bikes?

- A** $\frac{3}{7}$ mile
- B** $\frac{7}{10}$ mile
- C** $\frac{7}{5}$ miles
- D** $\frac{12}{5}$ miles

- 10 Lenny bought sunglasses for \$3.35 and a beach towel for \$8.71, including tax. He gave the clerk \$15.00 to pay for these items. What is the amount of change Lenny should receive?**
- F** \$2.94
G \$3.94
H \$11.06
J \$12.06

- 11 Which estimate is most reasonable for the weight or the mass of the gym shoes this girl is holding?**



- A** 40 kilograms
- B** 30 pounds
- C** 20 ounces
- D** 10 grams

- 12 16 ounces = 1 pound**

2 pounds = ? ounces

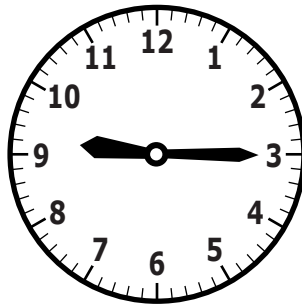
- F** 32
- G** 18
- H** 14
- J** 8

13 3 feet = 1 yard

Malik bought 38 feet of fencing to place around his garden. Which length is equivalent to 38 feet?

- A** 12 yards 2 feet
- B** 12 yards 2 inches
- C** 3 yards 2 feet
- D** 3 yards 2 inches

14 This clock shows the time Xavier finished swim practice.

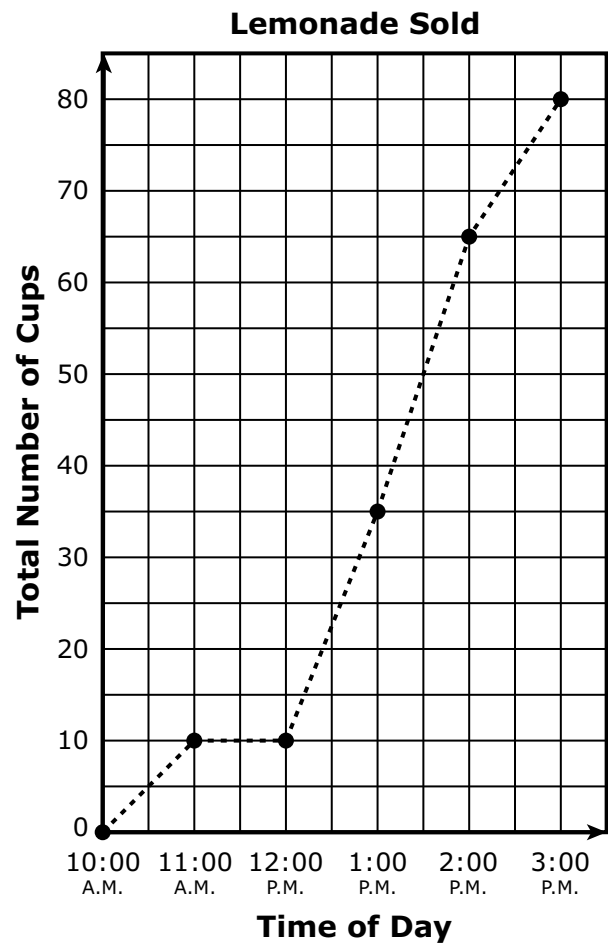


His practice lasted 2 hours 20 minutes. At what time did Xavier's swim practice start?

- F** 7:55
- G** 7:15
- H** 7:35
- J** 6:55

Directions: Use the following information to answer question 15.

This line graph shows the total number of cups of lemonade Patrick sold on one day from 10:00 A.M. until 3:00 P.M.



15 Which table shows another way to organize the data?

Lemonade Sold

A

Time of Day	Number of Cups Sold Per Hour	Total Number of Cups
10:00 A.M.	0	0
11:00 A.M.	10	10
12:00 P.M.	0	10
1:00 P.M.	25	35
2:00 P.M.	30	65
3:00 P.M.	15	80

Lemonade Sold

B

Time of Day	Number of Cups Sold Per Hour	Total Number of Cups
10:00 A.M.	0	0
11:00 A.M.	10	10
12:00 P.M.	10	0
1:00 P.M.	35	25
2:00 P.M.	65	30
3:00 P.M.	80	15

Lemonade Sold

C

Time of Day	Number of Cups Sold Per Hour	Total Number of Cups
10:00 A.M.	10	10
11:00 A.M.	10	10
12:00 P.M.	0	10
1:00 P.M.	25	35
2:00 P.M.	30	65
3:00 P.M.	15	80

Lemonade Sold

D

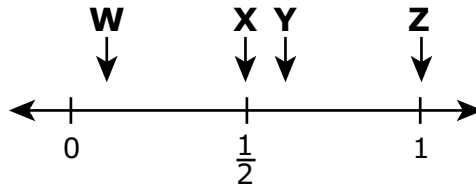
Time of Day	Number of Cups Sold Per Hour	Total Number of Cups
10:00 A.M.	10	10
11:00 A.M.	10	10
12:00 P.M.	0	10
1:00 P.M.	25	35
2:00 P.M.	30	65
3:00 P.M.	80	80

End of Set

16 Isaiah has erasers in his pocket.

- There are orange erasers and purple erasers.
- All the erasers are the same size and shape.
- Isaiah is least likely to select a purple eraser when he takes one eraser out of his pocket without looking.

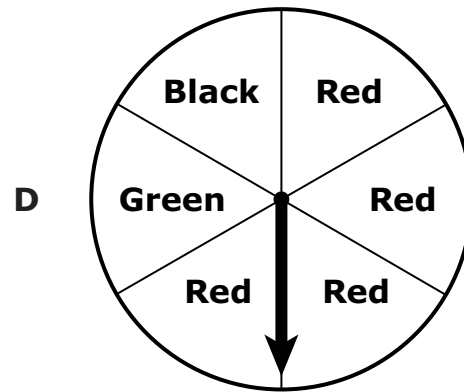
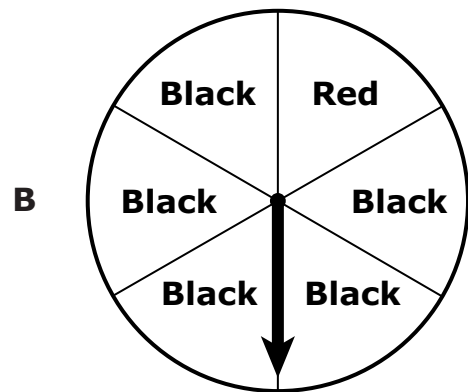
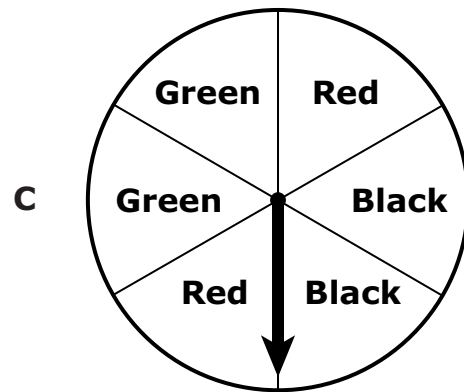
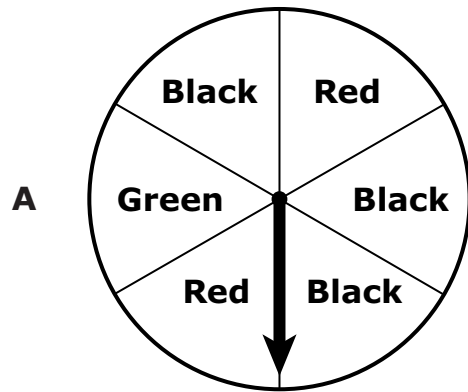
Which letter best represents the probability Isaiah will select a purple eraser?



Select the correct answer.

- F** W
- G** X
- H** Y
- J** Z

- 17 The probability that the arrow on a spinner will land on a space labeled black is $\frac{3}{6}$. Which spinner best represents this situation?



18 This list of numbers follows a pattern.

14, 23, 32, 41, 50...

The pattern continues in the same way. What will be the 7th number in this pattern?

F 72

G 68

H 59

J 51

**Grade 4 Mathematics
Practice Item Set Spring 2025
Answer Key**

Sequence Number	Correct Answer	Reporting Category	Reporting Category Description
1	B	001	Number and Number Sense
2	J	001	Number and Number Sense
3	D	001	Number and Number Sense
4	G	002	Computation and Estimation
5	B	002	Computation and Estimation
6	F	001	Number and Number Sense
7	C	001	Number and Number Sense
8	H	002	Computation and Estimation
9	C	002	Computation and Estimation
10	F	002	Computation and Estimation
11	C	003	Measurement and Geometry
12	F	003	Measurement and Geometry
13	A	003	Measurement and Geometry
14	J	003	Measurement and Geometry
15	A	004	Probability, Statistics, Patterns, Functions, and Algebra
16	F	004	Probability, Statistics, Patterns, Functions, and Algebra
17	A	004	Probability, Statistics, Patterns, Functions, and Algebra
18	G	004	Probability, Statistics, Patterns, Functions, and Algebra

