

**STUDENT READINESS
ASSESSMENT ITEM
RELEASE GUIDE
STUDENT EDITION
GRADE 4 MATHEMATICS**

Grade 4

Reporting Category:

Multiplication and Division

CRITICAL AREA OF FOCUS #1

Developing an understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends as part of effectively and efficiently performing multi-digit arithmetic

Question _____

An equation is shown.

$$40 = 5 \times 8$$

Which statement can be used to represent the equation?

- (A) 40 is 5 more than 8.
- (B) 8 more than 5 is 40.
- (C) 40 is 8 times as many as 5.
- (D) 8 is 5 times as many as 40.

Question _____

A red shirt costs 3 times as much as a black shirt. If a black shirt costs \$9, how much does a red shirt cost?

Select the **two** statements that can be used to represent the problem.

- 3 times 9 is 27.
- 3 times 27 is 9.
- 9 times 3 is 27.
- 9 times 27 is 3.
- 27 times 3 is 9.
- 27 times 9 is 3.

Question _____

A baker makes 30 cupcakes. He makes 3 times as many cupcakes as his friend Sarah.

How many cupcakes does Sarah make?

- (A) 10
- (B) 27
- (C) 33
- (D) 90

Question _____

Ms. Miller has 4 packs of pencils with 10 pencils in each pack. There are 32 students in Ms. Miller's class. She gives each student 1 pencil.

How many pencils does Ms. Miller have left over? Enter the number in the box.

Question _____

A teacher spends \$100 on posters for his classroom. The price for each size of poster is shown in the table.

Complete the table to show how many posters of each size the teacher could have bought.

Poster Size	Price	Number of Posters
Small	\$ 7	<input type="text"/>
Medium	\$11	<input type="text"/>
Large	\$13	<input type="text"/>

Question _____

Destini and Myles are playing a video game. Myles has 125 points. Destini has 9 times as many points as Myles.

How many points do they have altogether?

- (A) 139
- (B) 259
- (C) 1125
- (D) 1250

Question _____

Eliza writes a number.

- The number is between 20 and 30.
- It has exactly 4 factors.
- One of the factors is 7.

What is Eliza's number?

- (A) 21
- (B) 26
- (C) 28
- (D) 35

Question _____

Select the **four** numbers that are factors of 84.

- 4
- 5
- 6
- 9
- 14
- 21

Question _____

Four numbers in a number pattern are shown in the table. The pattern continues in the same way.

Complete the table to show the missing numbers in the number pattern.

255,	<input type="text"/>	,	<input type="text"/>	,	210,	<input type="text"/>	,	180,	165,	...
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Question _____

A teacher wrote the number 380,000. A student wrote the number 38,000.

How many times larger is the 8 in the teacher's number than the 8 in the student's number?
Enter the number in the box.

Question _____

Enter the value "two hundred five thousand, three hundred fifty" in the box.

Question _____

Select the **two** correct representations of the number "one thousand, twenty five."

- $1,000 + 20 + 5$
- $1,000 \times 20 \times 5$
- $1,000 + 200 + 5$
- 1,025
- 1,205
- 1,250

Question _____

Enter a number that rounds to 2,000 when rounded to the nearest thousand.

Question _____

An expression is given.

$$2344 + 835$$

What is the value of the expression? Enter the number in the box.

Question _____

What is the difference between 34,162 and 12,531? Enter the number in the box.

Question _____

Place models in the blank box to represent the product of 156 and 2.

- There may be more than one way to show a correct answer.

Delete✕

1


10


100


Question _____

What is the product of 24 and 13? Enter the number in the box.

Question _____

Ms. Thompson sets up chairs in rows for a school concert.

- She uses 328 chairs.
- She sets up at least 2 rows of chairs but not more than 10 rows of chairs.
- Each row has an equal number of chairs.

A. How many rows of chairs does Ms. Thompson set up? Enter the number in the first box.

B. How many chairs are in each row? Enter the number in the second box.

A.

B.

Question _____

A worker has 32 screwdrivers to put into tool kits.

A. How many tool kits can the worker make if he puts 6 screwdrivers into each tool kit? Enter the number in the first box.

B. How many screwdrivers will be left over after the worker makes the tool kits? Enter the number in the second box.

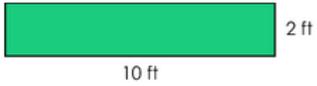
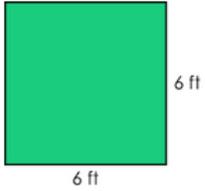
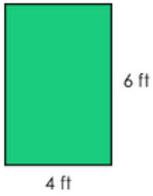
A.

B.

Question _____

A student creates a rectangular garden for 24 tomato plants. Each tomato plant has 1 square foot of space and there is no additional space in the garden.

Select the **three** rectangles that could represent the garden.



Grade 4

Reporting Category:

Fractions

CRITICAL AREA OF FOCUS #2

Developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers

Question _____

Create a fraction that is equivalent to $\frac{2}{3}$.

- Place a number in each box to make a fraction equivalent to $\frac{2}{3}$.
- There may be more than one correct answer.

$$\frac{\boxed{}}{\boxed{}}$$

4

5

6

8

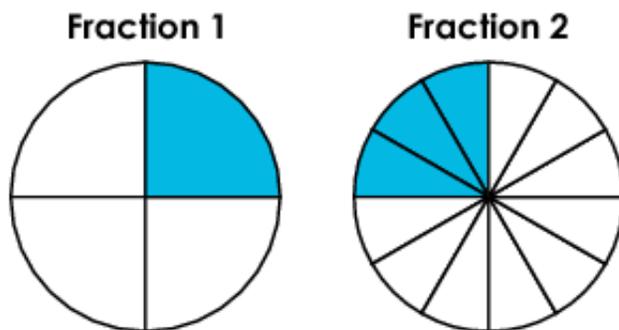
10

12

100

Question _____

Models of two equivalent fractions are shown.



Which statement describes how Fraction 2 can be created from Fraction 1?

- (A) Add 3 to the numerator only.
- (B) Multiply only the numerator by 3.
- (C) Add 3 to the numerator, and add 3 to the denominator.
- (D) Multiply the numerator by 3, and multiply the denominator by 3.

Question _____

Select the boxes to show whether each fraction is less than, equal to, or greater than $\frac{3}{4}$.

	Less Than $\frac{3}{4}$	Equal to $\frac{3}{4}$	Greater Than $\frac{3}{4}$
$\frac{6}{10}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{4}{5}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{9}{12}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question _____

The denominator of a fraction is doubled and the numerator stays the same. What is the effect on the value of the fraction?

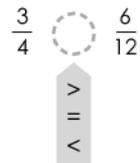
- A The value of the fraction is doubled.
- B The value of the fraction is halved.
- C The value of the fraction increases by 2.
- D The value of the fraction increases by $\frac{1}{2}$.

Question _____

Two fractions and two unshaded fraction models are shown.

- A. Select the comparison symbol that correctly compares the two fractions.
- B. Select sections of each fraction model to represent the comparison.

A.

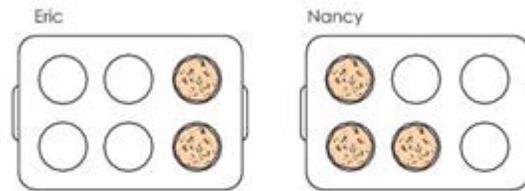


B.



Question _____

Eric and Nancy both baked muffins. They each filled a pan of the same size. Eric ate $\frac{4}{6}$ of his muffins and Nancy ate $\frac{3}{6}$ of her muffins. The diagram shows how many muffins they each have left.



What is the difference between the fraction of muffins Eric ate and the fraction of muffins Nancy ate? Enter the number in the box.

Question _____

An expression is given.

$$1\frac{2}{6} + 2\frac{5}{6}$$

What is the value of the expression? Enter the number in the box.

Question _____

Select the **two** expressions that have a sum of $\frac{7}{10}$.

$\frac{5}{5} + \frac{2}{5}$

$\frac{10}{10} + \frac{3}{10}$

$\frac{3}{10} + \frac{4}{10}$

$\frac{2}{10} + \frac{2}{10} + \frac{2}{10} + \frac{1}{10}$

$\frac{2}{2} + \frac{2}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$

Question _____

Jenna plans to place 16 plates of ham and cheese on tables at a picnic. She estimates that each plate will have $\frac{5}{8}$ pound of ham and $\frac{1}{8}$ pound of cheese.

Based on Jenna's estimate, how many pounds of ham and how many pounds of cheese does Jenna need? Enter a number in each box.

pounds of ham

pounds of cheese

Question _____

Which sum shows one way to express $1\frac{5}{6}$?

(A) $\frac{1}{6} + \frac{2}{6} + \frac{2}{6}$

(B) $\frac{1}{6} + \frac{5}{6} + \frac{6}{6}$

(C) $\frac{2}{6} + \frac{4}{6} + \frac{5}{6}$

(D) $\frac{5}{6} + \frac{5}{6} + \frac{5}{6}$

Question _____

An expression is shown.

$$12 \times \frac{3}{100}$$

What is the value of the expression? Enter the number in the box.

Question _____

A fraction is shown.

$$\frac{4}{10}$$

- A. Select boxes on the hundreds grid to model a fraction equivalent to $\frac{4}{10}$.
- B. Place numbers in the blank boxes to make the equation true.
- Use only **one** number in each blank box you fill in.

0
1
2
3
4
5
6
7
8
9

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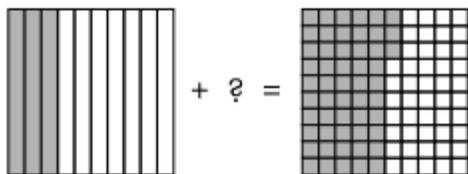
A.

B.

$$\frac{4}{10} = \frac{\boxed{}}{\boxed{}}$$

Question _____

An equation that uses fraction models is shown.



Which fraction makes the equation true?

- (A) $\frac{23}{100}$
- (B) $\frac{23}{90}$
- (C) $\frac{50}{100}$
- (D) $\frac{50}{90}$

Question _____

A fraction is given.

$$\frac{13}{100}$$

Which decimal is equal to the given fraction?

- (A) 0.0013
- (B) 0.013
- (C) 0.13
- (D) 1.3

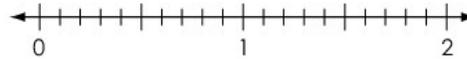
Question _____

Natalie and Wyatt are hiking. Natalie hikes for 1.5 miles and Wyatt hikes for 1.3 miles.

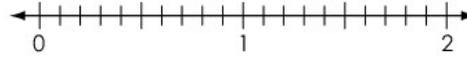
- A. Select a mark on each number line to show the distances, in miles, that Natalie and Wyatt hike.
- B. Select the symbol that completes the comparison for Natalie's and Wyatt's hikes.

A.

Natalie's Hike (miles)



Wyatt's Hike (miles)



B.

Distance Natalie Hikes Distance Wyatt Hikes



Question _____

Two numbers are being compared as shown.

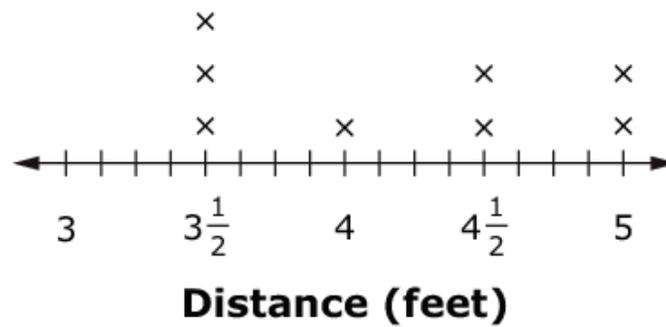
$$0.8 < \square$$

Which value makes this comparison true?

- (A) 0.08
- (B) 0.09
- (C) 0.8
- (D) 0.9

Question _____

A teacher measures how far some students in his class can jump. His data are shown in the line plot.



How many students jumped less than 4 feet?

- (A) 2
- (B) 3
- (C) 4
- (D) 8

Grade 4

Reporting Category:

Geometry

CRITICAL AREA OF FOCUS #3

Understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, and particular angle measures.

Question _____

Use the Connect Line tool to create a quadrilateral with only one set of parallel sides.

- There may be more than one correct answer.



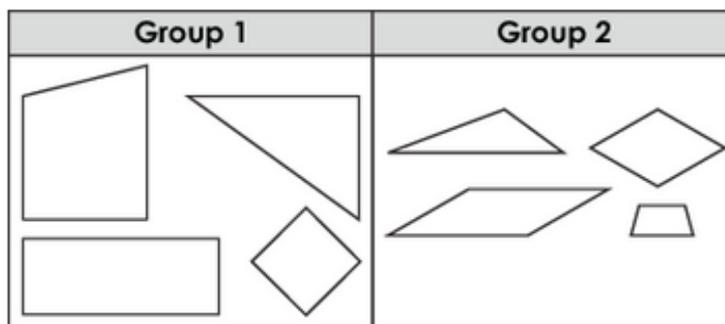
Question _____

Select the name that describes each angle.

acute <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
obtuse <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
right <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question _____

Two groups of figures are shown.

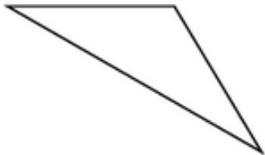
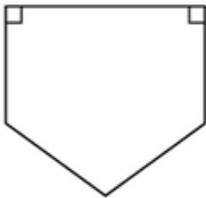
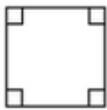
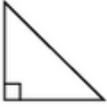


Which property was used to sort the figures into the two groups?

- Ⓐ acute angles
- Ⓑ obtuse angles
- Ⓒ parallel sides
- Ⓓ perpendicular sides

Question _____

Select the **three** polygons that have at least one set of parallel sides.



Question _____

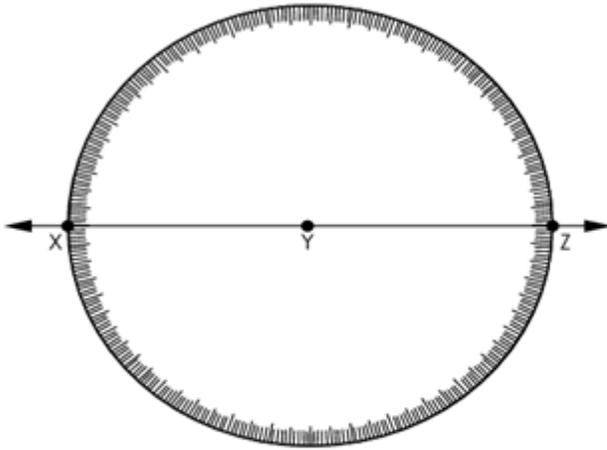
A student ran 9 kilometers (km).

How many meters (m) did she run? Enter the number in the box.

meters

Question _____

In the circle diagram shown, point Y is at the center of the circle.

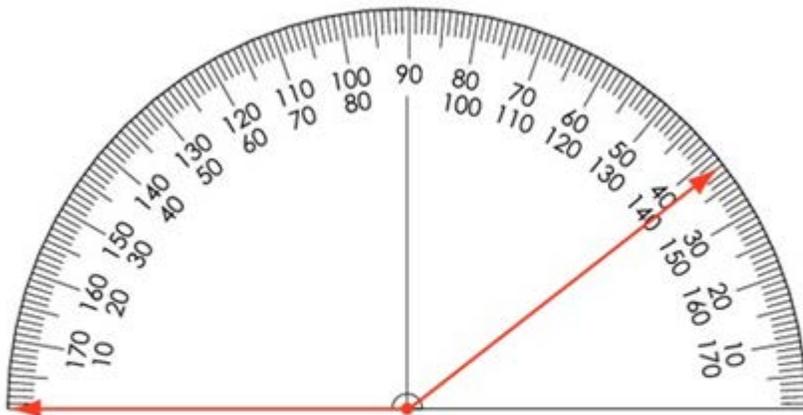


What is the measure, in degrees, of angle XYZ? Enter the number in the box.

degrees

Question _____

An angle is shown.



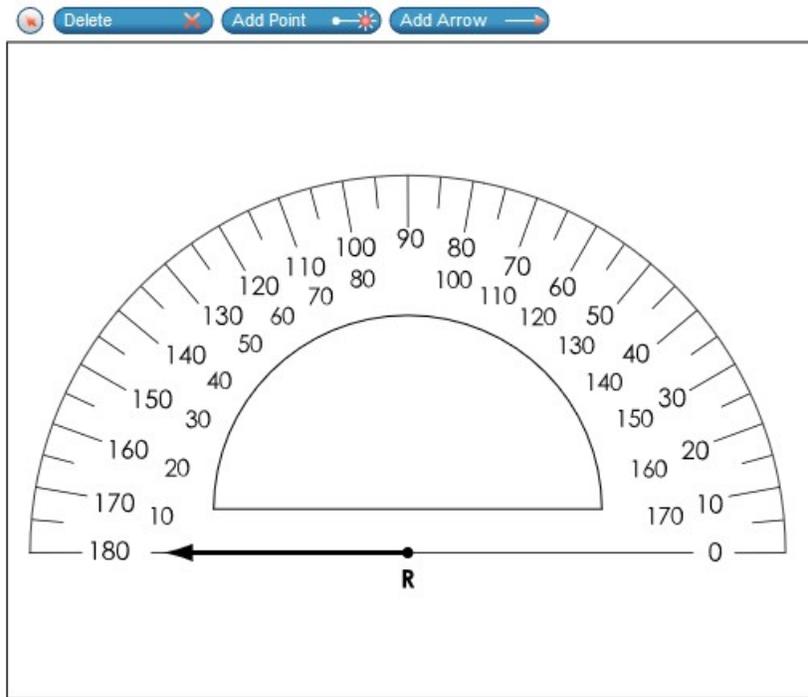
What is the measure of the angle, in degrees? Enter the number in the box.

degrees

Question _____

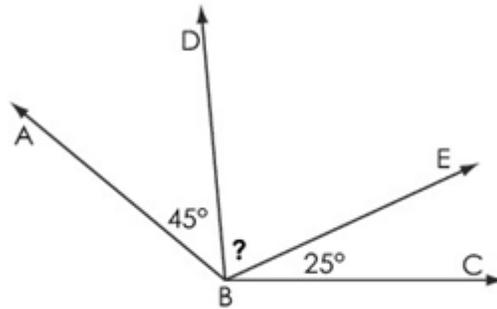
One ray of angle R is shown.

Use the Add Arrow tool to complete angle R so that it measures 135° .



Question _____

Angle ABC is made up of three smaller angles, as shown. The measure of angle ABC is 140° .

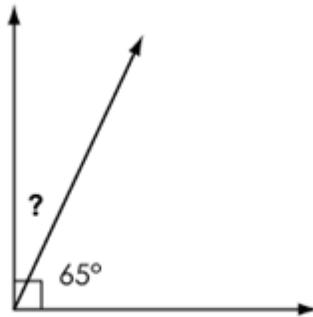


What is the measure, in degrees, of angle DBE? Enter the number in the box.

degrees

Question _____

A diagram is shown.



What is the measure, in degrees, of the missing angle? Enter the number in the box.

degrees