

VIRGINIA STANDARDS OF LEARNING

GRADE 5
MATHEMATICS

2023 Mathematics Standards of Learning

Practice Item Set

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Questions 1–2 are in the non-calculator section. Questions in this section may not be answered with a calculator.

Questions 3–24 are in the calculator section. A calculator may be used with questions in this section.

1

$$4.221 \div 7 = \underline{\quad ? \quad}$$

- A** 0.063
- B** 0.603
- C** 0.63
- D** 6.03

2 Using the order of operations, which calculation should be done first to simplify this expression?

$$54 + 6 \times (3 + 6) \div 3$$

- F** $3 + 6$
- G** 6×3
- H** $6 \div 3$
- J** $54 + 6$

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

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

3 Which expression represents the prime factorization of 75 ?

- A** 3×25
- B** $3 \times 3 \times 5$
- C** $3 \times 5 \times 5$
- D** $3 \times 3 \times 5 \times 5$

4 Destiny is delivering a total of 32,000 flowers to several stores. This table shows the number of these flowers she has delivered to Store P and Store Q.

Flowers Delivered

Store	Number of Flowers
Store P	18,104
Store Q	9,294

The total number of these flowers that Destiny still needs to deliver is —

- F** 59,398
- G** 27,398
- H** 8,810
- J** 4,602

- 5 A farmer is picking fruit. She picks 1,457 apples and 678 pears.**
- **She will fill baskets using these pieces of fruit.**
 - **She will fill each basket with 24 pieces of fruit.**

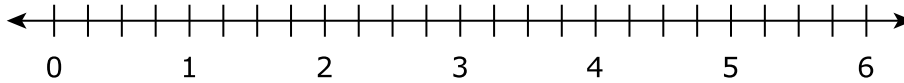
What is the total number of baskets the farmer will be able to fill with these pieces of fruit?

- A 2,135**
- B 779**
- C 89**
- D 88**

- 6 What is the least common denominator for $\frac{1}{4}$ and $\frac{7}{12}$?**

- F 12**
- G 16**
- H 24**
- J 48**

- 7** A trail is $\frac{3}{4}$ mile long. Robert ran the length of the trail 2 times. A blank number line is provided.



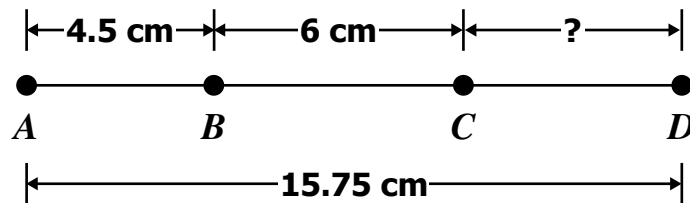
What is the total number of miles Robert ran?

- A** $1\frac{1}{2}$ mi
- B** $2\frac{3}{4}$ mi
- C** 6 mi
- D** 8 mi
- 8** **Mason has a brick and 5 wood blocks.**
- **The brick has a mass of 2.27 kilograms.**
 - **Each wood block has a mass of 1.097 kilograms.**
- What is the difference between the combined mass of the 5 wood blocks and the mass of the brick?**
- F** 7.755 kilograms
- G** 5.485 kilograms
- H** 3.215 kilograms
- J** 1.173 kilograms

9 Ms. Collins bought 2 CDs for \$14.55 each and 3 DVDs for \$10.39 each. These prices include tax. She gave the cashier \$65.00. How much change should Ms. Collins receive?

- A \$4.73
- B \$5.27
- C \$40.06
- D \$60.27

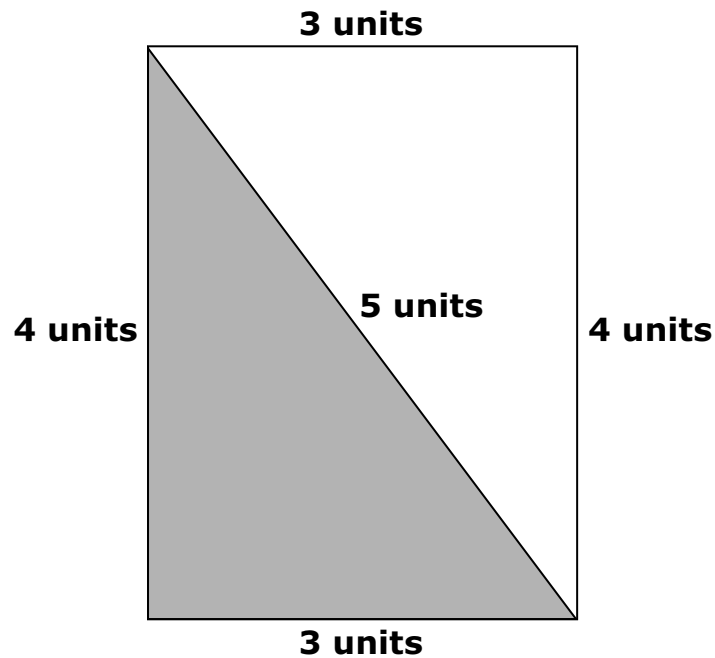
10 The measurements between four points on a map are shown. (Figure is not drawn to scale.)



What is the distance from point C to point D on the map?

- F 5.25 cm
- G 9.75 cm
- H 11.25 cm
- J 15.75 cm

11 A right triangle is shaded inside the rectangle shown.



Which expression could be used to find the area, in square units, of the triangle?

A $3 \times 4 \times \frac{1}{2}$

C $3 + 4 + 5$

B $3 \times 4 \times 5 \times \frac{1}{2}$

D $3 + 4 + 3 + 4$

12 Which term best describes the amount of jelly a jar will hold?

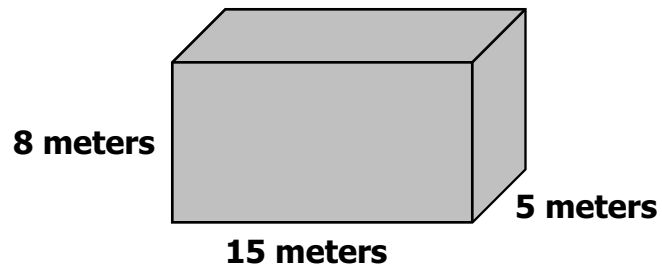
F Length

G Perimeter

H Volume

J Area

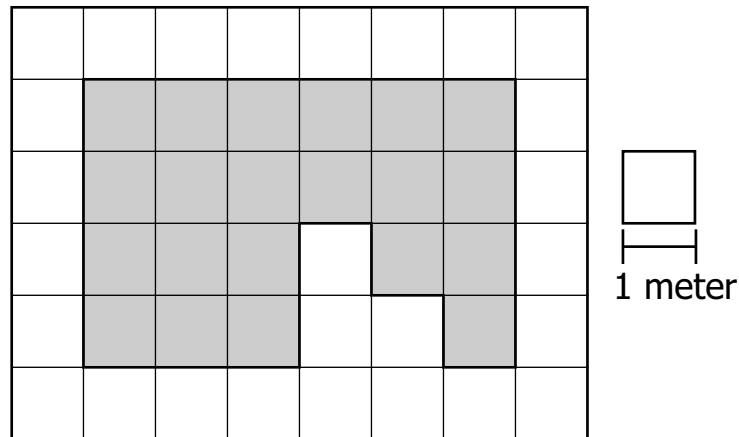
13 This figure represents a storage container.



What is the volume of this storage container?

- A** 600 cubic meters
- B** 195 cubic meters
- C** 120 cubic meters
- D** 115 cubic meters

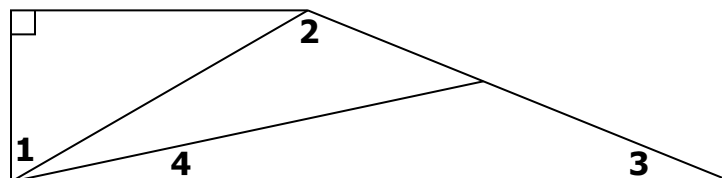
- 14 Brady is using grid paper to design a garden. The shaded figure represents the garden.



Which best describes the area and perimeter of the shaded figure on this grid?

- F Area of 24 square meters and perimeter of 24 meters
- G Area of 21 square meters and perimeter of 21 meters
- H Area of 24 square meters and perimeter of 21 meters
- J Area of 21 square meters and perimeter of 24 meters

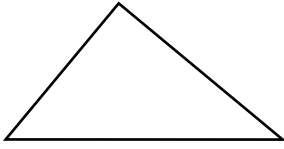
- 15 Which angle is an obtuse angle?



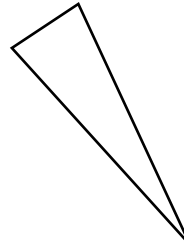
- A Angle 1
- B Angle 2
- C Angle 3
- D Angle 4

16 Which figure appears to be an isosceles triangle?

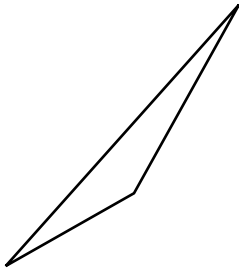
F



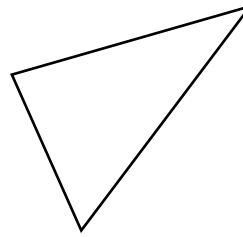
H



G



J



17 Which pattern follows the rule "divide by 4" to find each number after the first?

A 360, 90, 30, 15

B 256, 64, 16, 4

C 92, 88, 84, 80

D 23, 19, 15, 11

Directions: Use the following information to answer questions 18–19.

Seven students in a class are raising money for a fundraiser by riding their bicycles for 10 days.

- **The students will be paid for every mile they ride.**
- **This table shows the number of miles each student rode in the first four days.**

Fundraiser Miles

Student	Blake	Charles	Eva	Jasmine	Lucy	Micah	Robert
Number of Miles	10	18	9	10	18	18	22

18 Which question can the students NOT answer by analyzing the data in the table?

- F** What is the least number of miles a student rode?
- G** What is the number of miles the most students rode?
- H** What is the number of miles the students rode each day?
- J** What is the total number of miles the students rode on these four days?

19 Based on this table of data, the median number of miles is —

- A** 10, because it is the average number of miles
- B** 10, because it is the middle number of miles in the table
- C** 18, because it is the middle number of miles when the data are ordered from least to greatest
- D** 18, because it is the difference between the greatest number of miles and the least number of miles

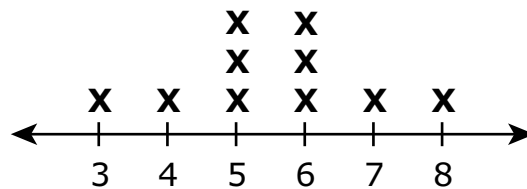
End of Set

20 A principal wants to know the number of days each student was absent from school last month. Which question would best collect the data?

- F** What is the number of students in the school?
- G** What is each student's favorite school subject?
- H** What is the number of days each student was absent last year?
- J** What is the number of days each student was absent last month?

21 This line plot shows the number of envelopes Tammie received in the mail on each of ten days.

Number of Envelopes in the Mail



Each **X** represents 1 day.

What is the total number of days on which Tammie received at least 6 envelopes in the mail?

- A** 2
- B** 3
- C** 5
- D** 7

22 This table shows the number of beads Irma has in 5 bowls.

Beads in Bowls

Bowl	Number of Beads
A	15
B	10
C	12
D	8
E	10

Irma will empty all the beads from these bowls and will put an equal number of beads back into each bowl. The number of beads she will put in each bowl represents the —

- F** sample space
- G** fair share
- H** product
- J** pattern

23 The data sets represent daily low temperatures, in degrees Fahrenheit, for four different cities.

In which data set does the range have the greatest spread?

- A** 21, 24, 29, 25, 27
- B** 33, 37, 36, 36, 33
- C** 42, 41, 43, 48, 44
- D** 53, 57, 54, 51, 53

- 24 This sample space shows all of the possible combinations of one type of drink and one type of snack that Leslie can choose.

Water, Apple
Water, Cheese
Water, Pretzels
Water, Banana
Juice, Apple
Juice, Cheese
Juice, Pretzels
Juice, Banana

According to the sample space, what is the probability that the combination Leslie chooses will include juice?

F $\frac{1}{8}$

G $\frac{1}{4}$

H $\frac{4}{8}$

J $\frac{8}{8}$

**Grade 5 Mathematics
Practice Item Set Spring 2025
Answer Key**

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

