Grade 5 Mathematics Reference Sheet

CONVERSIONS

1 mile = 5,280 feet
1 mile = 1,760 yards

1 pound = 16 ounces
1 ton = 2,000 pounds

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 liter = 1,000 cubic centimeters

FORMULAS

Right Rectangular Prism $V = Bh$ or $V = lwh$

Session 1

TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

- Read each question carefully and think about the answer before making your choice.
- You have been provided with mathematics tools (a ruler and a protractor) and a reference sheet to use during the test. It is up to you to decide when each tool and the reference sheet will be helpful. You should use mathematics tools and the reference sheet whenever you think they will help you to answer the question.

1 Mr. Smith has 1,104 student photos to display around the school. He plans to put them on 48 poster boards with the same number of photos on each poster board. How many student photos will Mr. Smith place on each poster board?

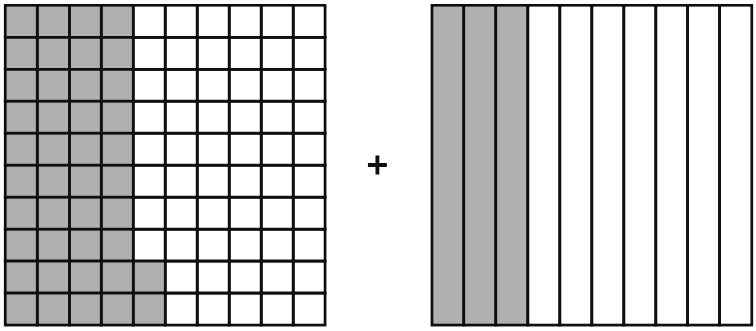
A 20

B 22

C 23

D 24

2 The shaded parts of the models below each represent a fraction.



What is the sum of the fractions?

A $\frac{45}{110}$

B $\frac{65}{110}$

C $\frac{70}{100}$

D $\frac{72}{100}$

GO ON

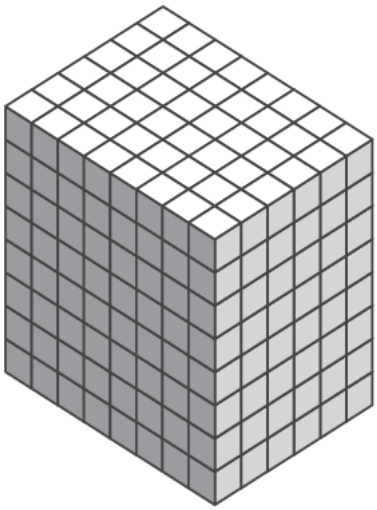
3 Jake used 1-centimeter cubes to build a right rectangular prism that has a volume of 24 cubic centimeters. Which figure could represent the prism that Jake built?

A

KEY

= 1 cubic cm

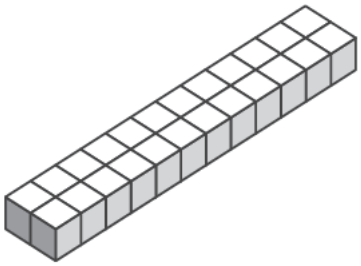
C



KEY

= 1 cubic cm

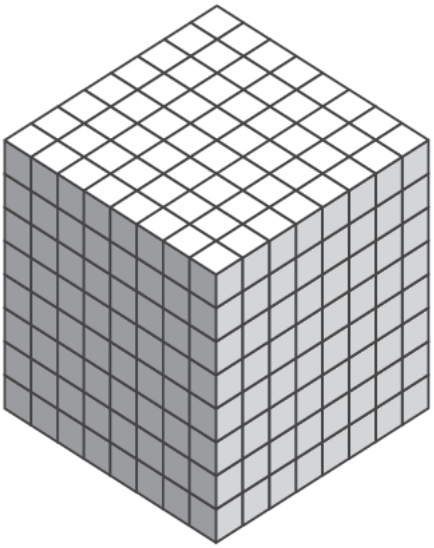
B



KEY

= 1 cubic cm

D



KEY

= 1 cubic cm

10 A school librarian ordered new books for the library. Of the new books ordered, $\frac{1}{3}$ are science, $\frac{2}{5}$ are biography, and the rest of the books are fiction. What fraction of the books ordered are fiction?

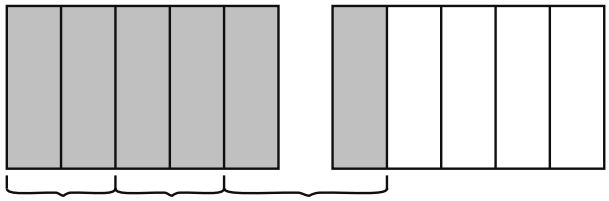
A $\frac{3}{5}$

B $\frac{3}{8}$

C $\frac{4}{15}$

D $\frac{11}{15}$

11 The model below is shaded to represent an expression.



Which expression represents the model?

A $\frac{1}{3} \times \frac{2}{5}$

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

C $3 \times \frac{2}{5}$

D $3 \times \frac{5}{2}$

GO ON

13 Which shape always has four congruent sides?

A parallelogram

B rectangle

C rhombus

D trapezoid

14 Which statement describes the value of the expression below?

$$67 \times \frac{1}{6}$$

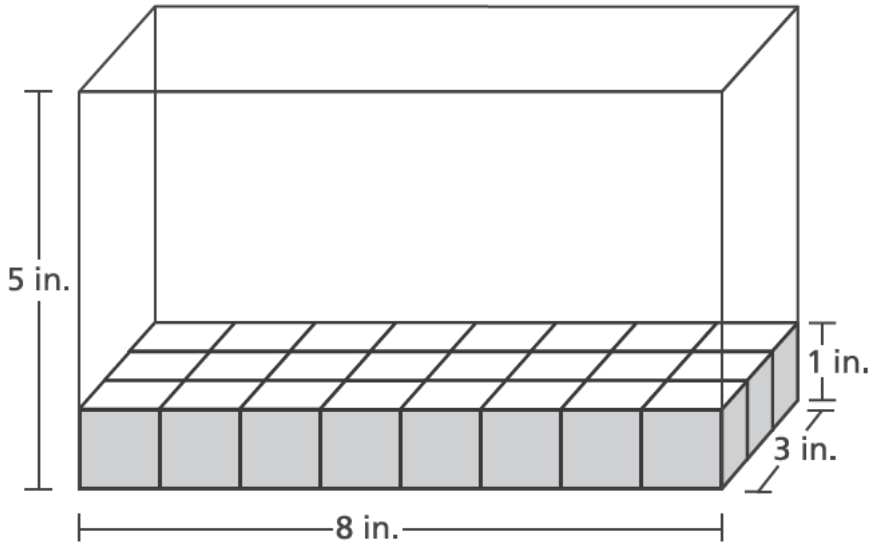
A The value is less than 67.

B The value is equal to 67.

C The value is greater than 67.

D The value is greater than 0 and less than 1.

17 The diagram below shows some 1-inch cubes placed in a box.



How many **more** 1-inch cubes are needed to completely fill the box?

A 16

B 24

C 96

D 120

18 Which expression has a value that is greater than 42.537 ?

A $(4 \times 10) + (2 \times 1) + \left(5 \times \frac{1}{10}\right) + \left(9 \times \frac{1}{100}\right) + \left(3 \times \frac{1}{1{,}000}\right)$

B $(4 \times 10) + (1 \times 1) + \left(6 \times \frac{1}{10}\right) + \left(2 \times \frac{1}{100}\right) + \left(5 \times \frac{1}{1{,}000}\right)$

C $(4 \times 10) + (2 \times 1) + \left(5 \times \frac{1}{10}\right) + \left(3 \times \frac{1}{100}\right) + \left(7 \times \frac{1}{1{,}000}\right)$

D $(4 \times 10) + (2 \times 1) + \left(5 \times \frac{1}{10}\right) + \left(1 \times \frac{1}{100}\right) + \left(9 \times \frac{1}{1{,}000}\right)$

24 A state fair held a heaviest-pumpkin contest. The winning pumpkin weighed 2,050 pounds. What is the weight, in ounces, of the winning pumpkin?

A 8,200

B 16,400

C 24,600

D 32,800

25 Which expression can be used to represent 8 more than the product of 15 and 12 ?

A $15 \times 12 + 8$

B $(15 + 12) \times 8$

C $15 \times 12 \times 8$

D $15 \times (12 + 8)$

GO ON

28 The volume of a single layer in a rectangular prism is 18 cubic centimeters. There are 5 layers in this rectangular prism. What is the volume, in cubic centimeters, of this rectangular prism?

A 90

B 23

C 13

D 3.6

29 Which situation could the expression $\frac{1}{4} \div 3$ represent?

A $\frac{1}{4}$ of a package of pencils shared equally among three friends

B the number of $\frac{1}{4}$-cup servings in three cups of popcorn

C $\frac{1}{3}$ of a stadium split into four equal sections

D a four-foot-long rope cut into $\frac{1}{3}$-foot pieces

30 Caley builds a rectangular prism using 18 cubes that each measure 1 centimeter on each side. What could be the dimensions of her rectangular prism?

A length: 2 cm width: 2 cm height: 3 cm

B length: 2 cm width: 3 cm height: 3 cm

C length: 3 cm width: 3 cm height: 3 cm

D length: 6 cm width: 6 cm height: 6 cm

STOP

Grade 5
2018
Mathematics Test
Session 1
May 1–3, 2018

Name: _____

New York State Testing Program

2018 Mathematics Test Session 2

Grade 5

May 1–3, 2018

Released Questions

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Session 2

TIPS FOR TAKING THE TEST

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- Be sure to show your work when asked.

31 How many $\frac{1}{3}$-cup servings are in 4 cups?

A $\frac{1}{12}$

B $\frac{3}{4}$

C 4

D 12

32 What is the value of $9\frac{2}{3} - 4\frac{1}{5}$?

A $5\frac{1}{8}$

B $5\frac{7}{8}$

C $5\frac{5}{15}$

D $5\frac{7}{15}$

33 Which decimal number is equivalent to $\frac{73}{100}$?

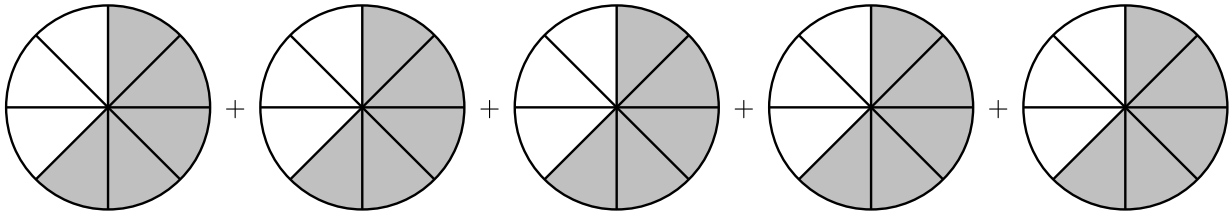
A 0.73

B 7.30

C 73.100

D 100.73

34 Which expression could be represented by the shaded parts of the model below?



A $\frac{5}{8} + \frac{5}{5}$

B $\frac{5}{8} \times \frac{5}{5}$

C $\frac{5}{8} + 5$

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

35 Three boxes are shipped on a truck. Each box has a base of 16 square feet. Two of the boxes have a height of 3 feet and one box has a height of 5 feet. What is the total volume, in cubic feet, of the three boxes?

A 240

B 176

C 144

D 128

36 Lin's goal is to drink 8 cups of water every day. She drank 37 ounces before lunch today. How much more water does Lin need to drink today to reach her goal?

A 27 ounces

B 29 ounces

C 59 ounces

D 91 ounces

37 Ursula drew a polygon in which all the angles were obtuse. What kind of polygon could she have drawn?

A trapezoid

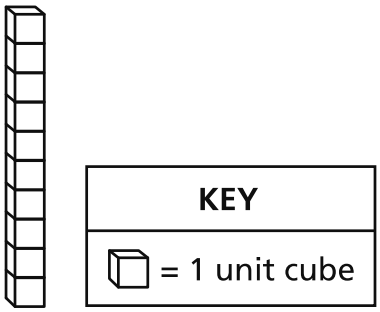
B parallelogram

C triangle

D pentagon

GO ON

38 Anna is building a figure that has three columns of unit cubes. The first column is shown below.



The other two columns each have four fewer unit cubes than the first column. What is the volume, in cubic units, of Anna's figure?

A 12

B 16

C 22

D 24