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?

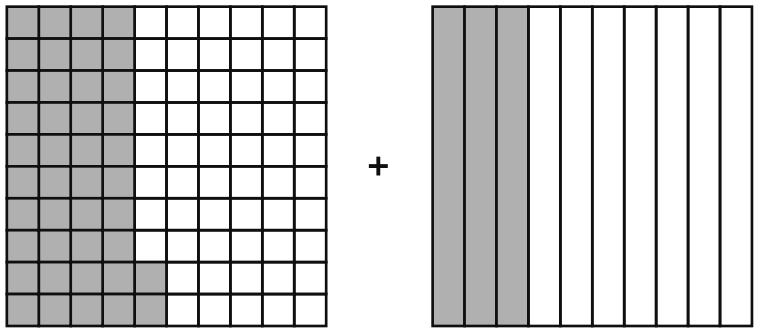
A 20

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

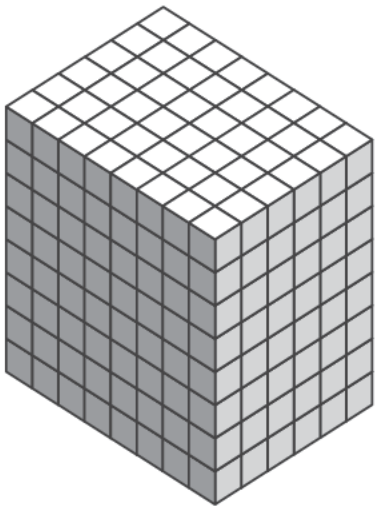
3 Jake used 1-centimeter cubes to build a right rectangular prism that has a volume of 24 cubic centimeters. Which figure could represent the prism that Jake built?

A

KEY

= 1 cubic cm

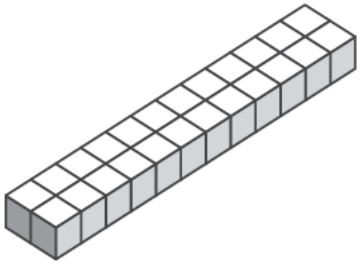
C



KEY

= 1 cubic cm

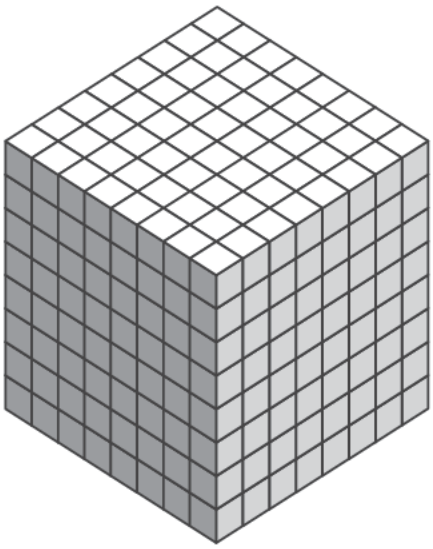
B



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?

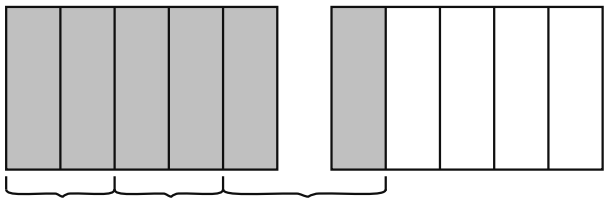
A $\frac{3}{5}$

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?

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

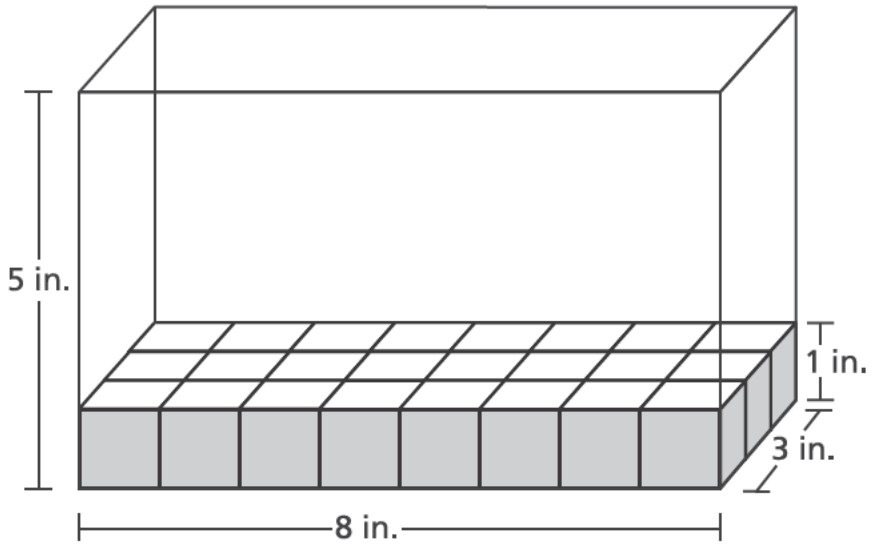
A The value is less than 67.

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 $15 \times (12 + 8)$

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

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 $\frac{73}{100}$?

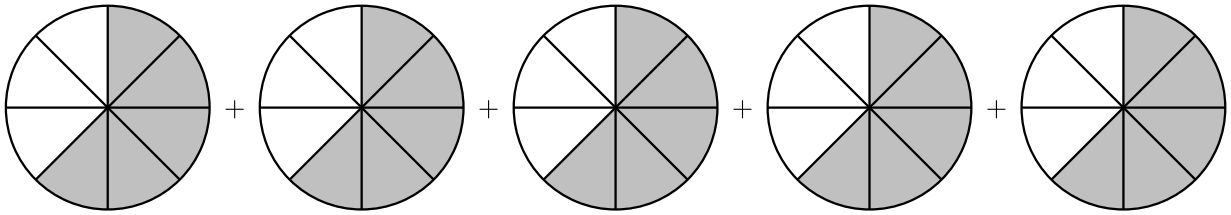
A 0.73

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

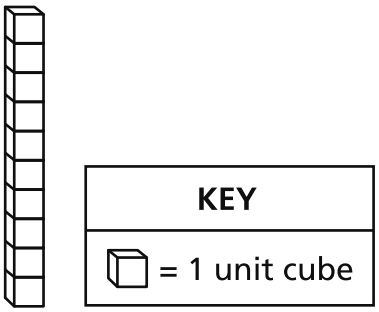
B parallelogram

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

39 Samantha is using a 2-liter pitcher to serve lemonade to 10 of her friends. How many times will she need to fill the pitcher in order to serve each friend 400 milliliters of lemonade?

Show your work.

Answer _____ times

GO ON

40 Write a number in which the value of the digit 3 is 10 times the value of the digit 3 in 156.32. Explain how you know the number you wrote is correct.

Answer

41 Mark and his friends order two pizzas of the same size.

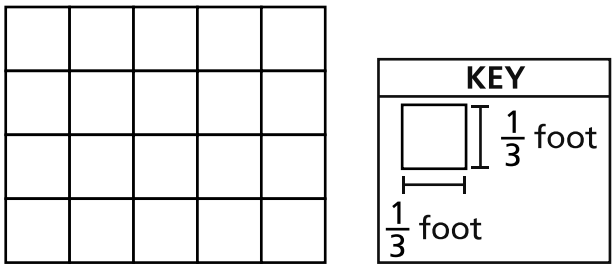
- The first pizza is cut into 6 slices of equal size.
- The second pizza is cut into 4 slices of equal size.

Each person plans to take 2 slices of pizza. Mark concludes that he would get more pizza by taking 1 slice from each pizza, instead of 2 slices from the first pizza. Explain why Mark is correct. Be sure to include a number comparison using > or < in your explanation.

Answer

42 A section of a rectangular floor is covered with square floor tiles, as shown below.

Each square tile has a side length of $\frac{1}{3}$ foot.



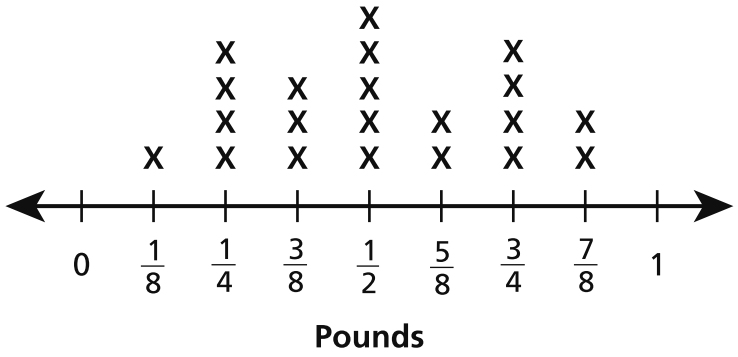
What is the area, in square feet, of the section of the rectangular floor that is covered with floor tiles?

Show your work.

Answer _____ square feet

43 The line plot shows the number of bags of grapes, grouped by weight, to the nearest $\frac{1}{8}$ pound.

WEIGHT OF BAGS OF GRAPES



How many bags of grapes had a weight of $\frac{3}{8}$ pound or less?

Answer _____ bags

What was the total weight of the grapes in the bags that had a weight of $\frac{3}{8}$ pound or less?

Show your work.

Answer _____ pound(s)

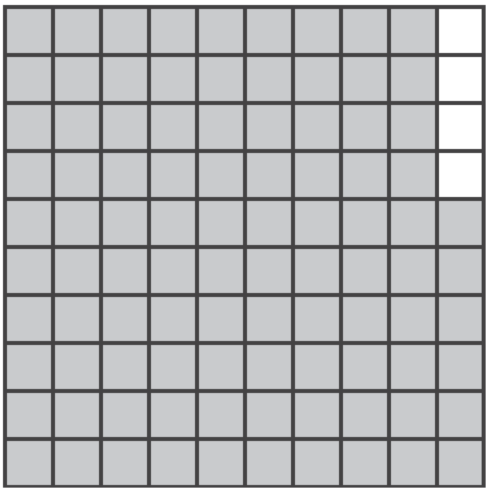
GO ON

44 At the Middleton School festival, a tent covers a rectangular space $30\frac{1}{2}$ yards long and $9\frac{1}{3}$ yards wide. What is the area, in square yards, covered by the tent?

Show your work.

Answer _____ square yards

45 Kia purchased books at a book fair. The shaded part of the decimal grid below represents the part of $1.00 that she has remaining after purchasing her books.



Kia decides to give all of the money she has remaining to her 3 friends so they can buy some bookmarks which cost $0.10 each. If Kia gives each of her friends the same amount of money, what is the greatest number of bookmarks that each of her friends can buy?

Show your work.

Answer _____ bookmarks per friend

STOP