



Linton Hall School

9535 Linton Hall Road Bristow, Virginia 20136-1200
(703)368-3157 Fax: (703)368-3036

This Summer Math Packet is for all students who will be entering 6th grade in the fall of 2019.

Please note: This packet contains two sections. The first section is a review of 5th grade concepts and the second section is readiness for 6th grade.

This packet must be completed prior to the start of school. It will be collected our first week back.

We understand everyone needs a break and wants to have fun over the summer. Therefore, please know that this is just reinforcement to make sure our students do not lose the skills they have learned throughout the school year.

Thank you for your continued support and have a blessed summer.

One ounce is about the same as 0.06 pound. What is 0.06 written as a fraction?

- A $\frac{6}{10}$
- B $\frac{1}{6}$
- C $\frac{1}{60}$
- D $\frac{6}{100}$

Which of the following is equal to $\frac{59}{1000}$?

- A 5.9
- B 0.59
- C 0.509
- D 0.059

Order the numbers from least to greatest.

4.18 4.5 4.018 0.432

What is the sum of 7.535 and 29.02?

Gary is buying two posters. One poster costs \$5.43 and the second costs \$13.36. How much more does the second cost than the first?

A huge metal container in Teddy's backyard forms a perfect cube. Its length, width, and height are each 4 feet. If it rains enough to fill the container, there will be 4^3 cubic feet of water in it. Which of the following is equal to 4^3 ?

- A 256
- B 64
- C 27
- D 12

Which of the following is equal to 6^7 ?

- A 6×7
- B $6 \times 6 \times 6 \times 6 \times 6 \times 6$
- C $7 \times 7 \times 7 \times 7 \times 7 \times 7$
- D $6 \times 6 \times 6 \times 6 \times 6 \times 6 \times 6$

What value of p makes the equation true?

$$32 \times 125 = (32 \times 100) + (32 \times p)$$

- A 5
- B 20
- C 25
- D 32

If Brian drinks an average of 16 glasses of juice a week for 9 weeks, he will drink about 16×9 glasses of juice. Which of the following is equal to 16×9 ?

- A $(10 + 9) - (6 + 9)$
- B $(10 \times 9) + (6 \times 9)$
- C $(10 \times 9) \times (6 \times 9)$
- D $(10 + 9) \times (6 + 9)$

Justine can type 43 words per minute. At that rate, how many words can she type in 45 minutes?

Juan has 18 stickers in an album. Marissa has 4 times more stickers in her album. Marissa drew the picture below to find out how many stickers she has.

n number of stickers			
18	18	18	18

Which equation represents the problem?

- A $4 \times 18 = n$
- B $n \times 18 = 4$
- C $n \times 4 = 18$
- D $18 \times 18 \times 18 \times 18 = n$

Which of the following is the best estimate of $812 \div 5$?

- A 160
- B 200
- C 250
- D 300

Solve the division problem below.

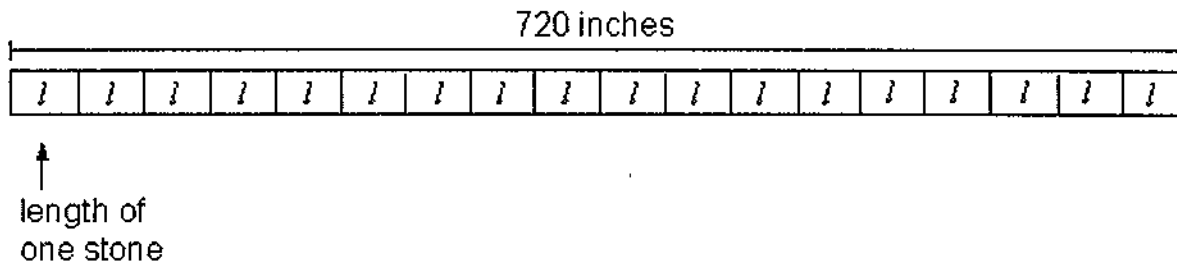
$$6 \overline{)655}$$

- A 19 R1
- B 109 R1
- C 109
- D 119 R1

Juanita and 4 friends are going to distribute leaflets for a Humane Society fundraiser. They want to divide the work equally. If there are 1,035 leaflets to distribute, how many does each need to take?

- A 201 leaflets
- B 207 leaflets
- C 259 leaflets
- D 270 leaflets

Daria is using a single line of paving stones to make a straight path through her garden. The path will be 720 inches long. She is using 18 paving stones. Which of the following can be used to find l , the length of each paving stone?



- A $720 + 18 = l$
- B $720 - 18 = l$
- C $720 \times 18 = l$
- D $720 \div 18 = l$

A spool of ribbon holds 2,400 inches of ribbon. Twenty inches of ribbon are needed for each pillow. How many pillows can be made?

The table shows the total amount of money Darnell earned on Friday, Saturday, and Sunday. Darnell earns \$28 per hour. How can you find the total number of hours Darnell worked during the three days?

Day	Total Amount Earned
Friday	\$168
Saturday	\$112
Sunday	\$196

Shirley bought 20.8 pounds of bird seed at a bargain store. She wants to fill her feeder 100 times with an equal amount. How much seed should she put in the feeder each time?

- A 0.0208 pounds
- B 0.208 pounds
- C 2.8 pounds
- D 2.08 pounds

Find the quotient to the division problem below.

$$2.4 \overline{)68.64}$$

What is the value of the expression $10 - (8 + 6) \div 2 - 1$?

What is the first step in evaluating the expression below?

$$12 + 6 - 4 \div (2 + 5)$$

- A Divide 4 by 2.
- B Add 2 and 5.
- C Add 12 and 6.
- D Subtract 4 from 6.

What is the value of the expression below?

$$7 \times (7 - 4) + 6$$

What is the value of the expression below?

$$9 \times (8 - 5) + 8?$$

What is the value of $n + 8 - n$, if $n = 23$?

There were 26 computers in the computer lab. If c represents the number of computers that were removed from the lab, which expression represents the number of computers that remain in the computer lab?

- A $26 - c$
- B $26 + c$
- C $26 \times c$
- D $26 \div c$

Solve the equation by testing these values for k : 2, 3, 4, and 5.

$$12k = 48$$

- A $k = 5$
- B $k = 4$
- C $k = 3$
- D $k = 2$

What is the value of $11 \times k$ when k is 5?

- A 5
- B 6
- C 55
- D 16

To observe a session of the state senate, 18 students are visiting the state capitol. They will tour the capitol in groups with x chaperones. Complete the table. How many students will be in each group if $x = 9$?

x	$18 \div x$
1	18
9	?
6	3

Lucy spent \$15 of her money. If m represents her money, which expression shows how much money Lucy will have left?

- A $15 - m$
- B $m - 15$
- C $\frac{m}{15}$
- D $15 + m$

Which two fractions are equivalent to $\frac{4}{5}$?

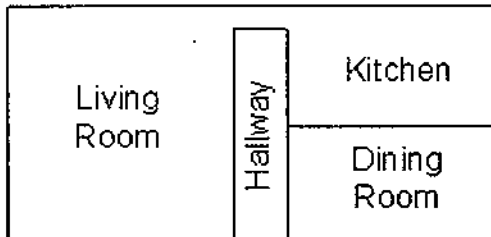
- A $\frac{10}{12}, \frac{15}{20}$
- B $\frac{20}{25}, \frac{50}{60}$
- C $\frac{15}{18}, \frac{25}{30}$
- D $\frac{24}{30}, \frac{28}{35}$

Write the fraction in simplest form. Write the fraction in simplest form.

$$\frac{9}{12}$$

$$\frac{12}{18}$$

The floor plan for the first floor of Tommy's house is shown below. If the area of the kitchen is 180 square feet, which is the best estimate for the total area of the first floor of the house?



- A The kitchen is about $\frac{1}{6}$ of the total area, so the area of the first floor is about 180×6 , or 1,080 square feet.
- B The kitchen is about $\frac{1}{6}$ of the total area, so the area of the first floor is about $180 \div 6$, or 30 square feet.
- C The kitchen is about $\frac{1}{4}$ of the total area, so the area of the first floor is about 180×4 , or 720 square feet.
- D The kitchen is about $\frac{1}{4}$ of the total area, so the area of the first floor is about $180 \div 4$, or 45 square feet.

Which of these sums is greater than 1?

- A $\frac{1}{2} + \frac{2}{3}$
- B $\frac{1}{3} + \frac{1}{8}$
- C $\frac{1}{4} + \frac{2}{5}$
- D $\frac{1}{5} + \frac{1}{10}$

Which of these sums is less than 1?

A $\frac{1}{5} + \frac{3}{8}$

B $\frac{2}{3} + \frac{7}{10}$

C $\frac{7}{8} + \frac{3}{5}$

D $\frac{4}{5} + \frac{5}{8}$

The table shows the different sizes of boxes of crayons. What is the least number of Draw-It and Art Smart crayons Louis can buy so that he will have the same number of each?

Brand	Number in Box
Draw-It	6
Color Fun	20
Art Smart	15

What is the lowest common denominator you could use to subtract $\frac{1}{6}$ from $\frac{3}{4}$?

Girls with brown eyes make up $\frac{2}{5}$ of the class. Boys with brown eyes make up $\frac{1}{3}$ of the class. How much of the class has brown eyes?

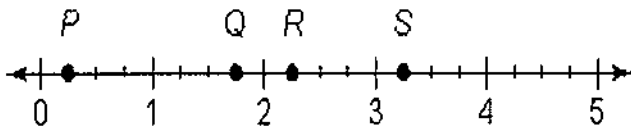
- A $\frac{2}{15}$
- B $\frac{3}{8}$
- C $\frac{4}{5}$
- D $\frac{11}{15}$

Nancy needs to complete $\frac{3}{4}$ of her homework by 5:00. So far she has completed $\frac{1}{3}$ of it. What part of her homework must she still complete by 5:00?

- A $\frac{2}{3}$
- B $\frac{5}{12}$
- C $\frac{3}{7}$
- D $\frac{1}{4}$

Olivia hopes to complete $\frac{4}{5}$ of the levels of her computer game by the end of the week. So far, she has completed $\frac{2}{3}$ of the levels. What part of the levels must she still complete to meet her goal?

Jon hiked $1\frac{3}{4}$ miles. Which point on the number line best represents the distance he hiked?



Carla's younger sister is $4\frac{1}{3}$ feet tall. Carla's younger brother is $2\frac{2}{3}$ feet tall. How much taller is Carla's sister than her brother?

There are 24 stanzas in a song for the school play. Samantha has memorized $\frac{3}{4}$ of them so far. How many stanzas has she memorized?

Cindy has to write an 18-page report. If she has written $\frac{1}{3}$ of her report so far, how many pages has she written?

What is $\frac{2}{3} \times \frac{3}{4}$?

What is $\frac{3}{7} \times \frac{2}{5}$?

What is $2\frac{1}{6} \times 2\frac{1}{4}$?

Each bag of potatoes weighs $5\frac{3}{4}$ pounds. How many pounds would $2\frac{1}{2}$ bags of potatoes weigh?

Use multiplication to find the quotient.

$$3 \div \frac{2}{3}$$

A $3 \times \frac{2}{3} = 2$

B $3 \times \frac{3}{2} = \frac{9}{2}$

C $3 \times 2 = 6$

D $3 \times 3 = 9$

Use multiplication to find the quotient.

$$7 \div \frac{2}{3}$$

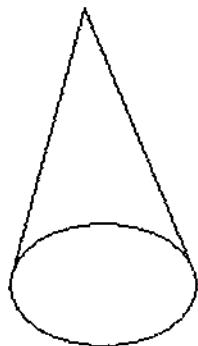
A $7 \times \frac{2}{3} = 2$

B $7 \times \frac{3}{2} = \frac{21}{2}$

C $3 \times 2 = 7$

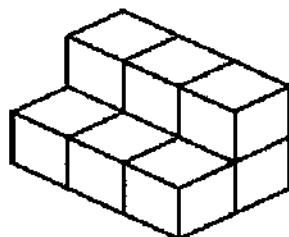
D $3 \times 3 = 9$




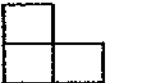
Darrell bought a candle that had the shape of the figure below. Which solid best describes the candle?



- A cone
- B cube
- C prism
- D pyramid

Which is a side view of the solid figure below?




- A 
- B 
- C 
- D 

A box contains 288 sugar cubes. You open the top of the box and count 12 cubes across the front and 6 cubes along a side. How many layers of sugar cubes are in the box?

A tablecloth is 82 inches long. What is the length in feet and inches?

- A 6 ft 10 in.
- B 7 ft 2 in.
- C 8 ft 2 in.
- D 11 ft 10 in.

Elliot put 7 cups of tea into the pitcher shown. How many more cups of tea does he need to fill the pitcher? (1 quart = 4 cups)

	Capacity: 4 quarts
---	--------------------

If 1 moose weighs 1,500 pounds, how many tons do 3 moose weigh?

- A 4,500 T
- B 2,000 T
- C 2.25 T
- D 2.5 T

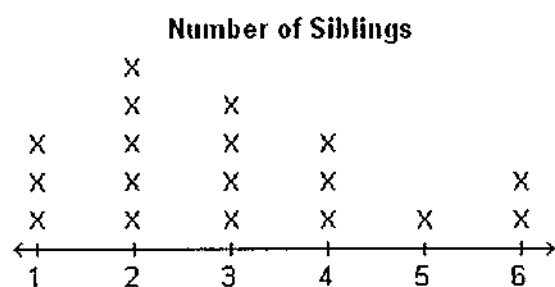
Which of the following tells how to change a measurement from millimeters to meters?

- A Divide by 10.
- B Multiply by 10.
- C Multiply by 1,000.
- D Divide by 1,000.

A jug contains 3.22 L of apple cider. How many milliliters of apple cider are in the jug?
(1,000 mL)

- A 32.3 mL
- B 322 mL
- C 1,322 mL
- D 3,220 mL

Sam took a survey and recorded the results in the line plot below. He asked the question, "How many siblings do you have?" How many people responded to this survey?

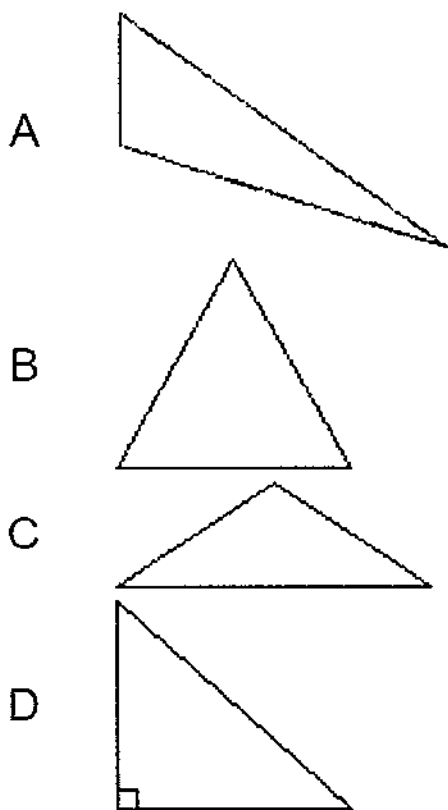


How many acute angles does an equilateral triangle have?

- A 0 angles
- B 1 angle
- C 2 angles
- D 3 angles

How many sides are there in a hexagon?

Which of the following is an acute, equilateral triangle?

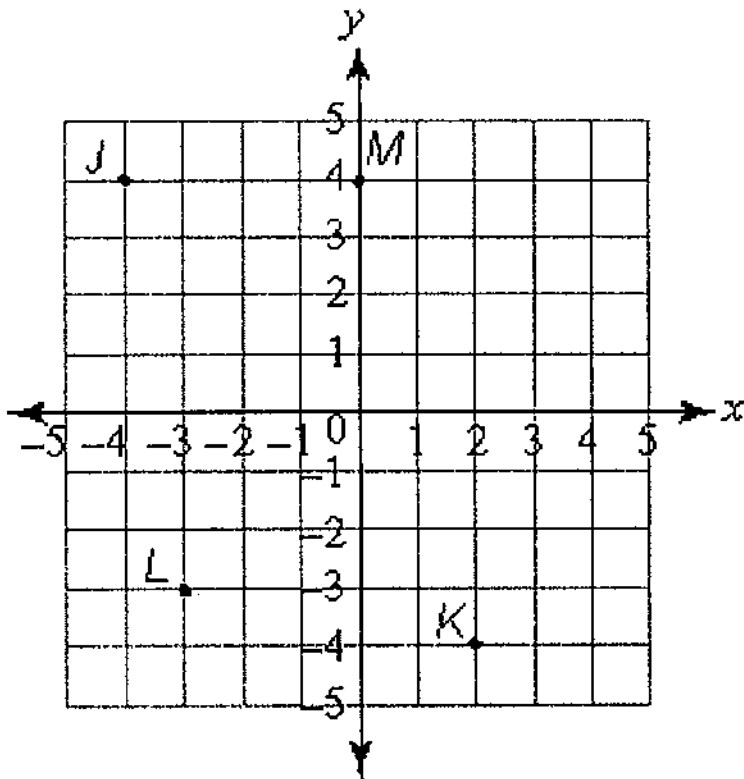


What is the measure of each angle of a rectangle?

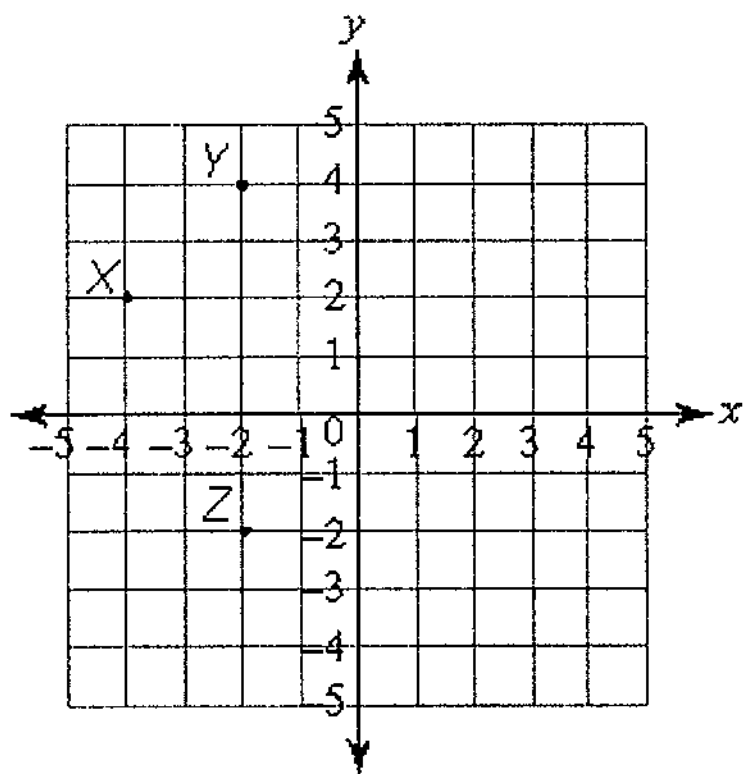
A quadrilateral has only 2 right angles and 1 pair of parallel sides. What is the name of the quadrilateral?

- A square
- B rectangle
- C trapezoid
- D rhombus

What is the ordered pair for point *J* on the graph?



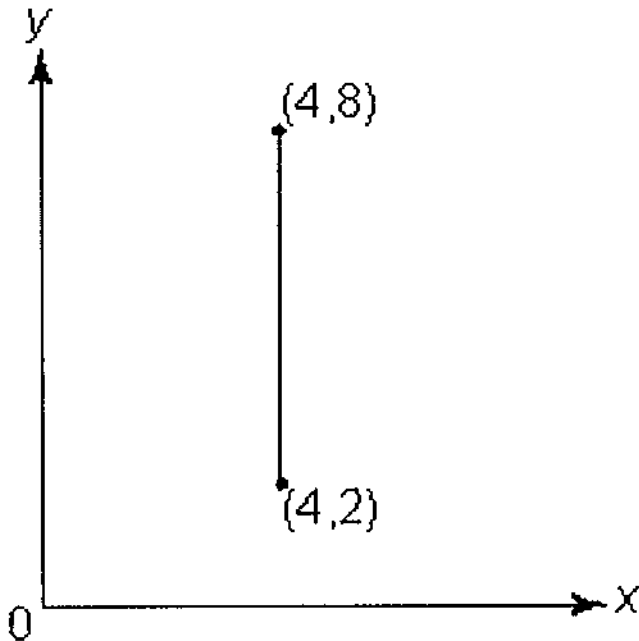
What is the ordered pair for point X on the graph?



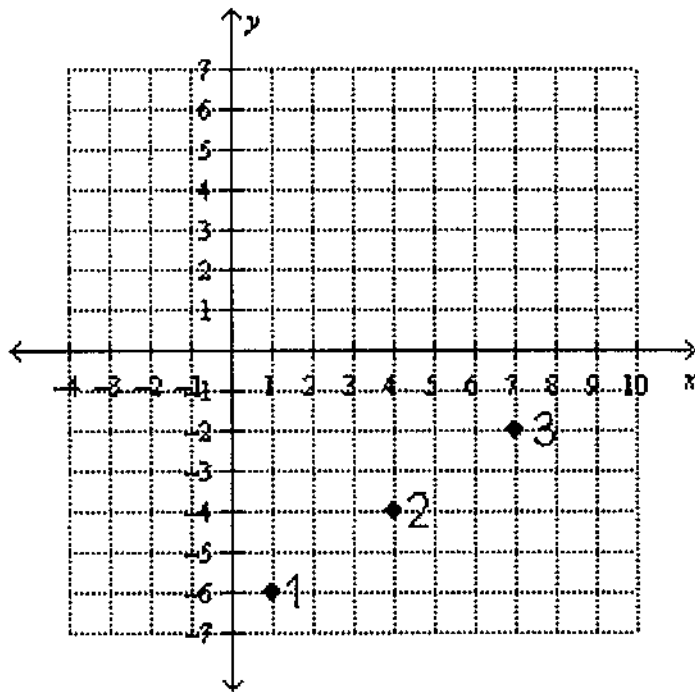
What is the distance between $(5, 8)$ and $(5, 3)$?

- A 2 units
- B 3 units
- C 5 units
- D 11 units

What is the length of the line segment?



What is the pattern between the Points 1, 2, and 3?



- A right 2, up 3
- B left 3, down 2
- C left 2, down 3
- D right 3, up 2

Points W–Z follow the pattern up 3, left 5. If point W is (+1, +4), then what is point Y?

- A (-4, +7)
- B (-9, +10)
- C (+4, -1)
- D (+7, -6)

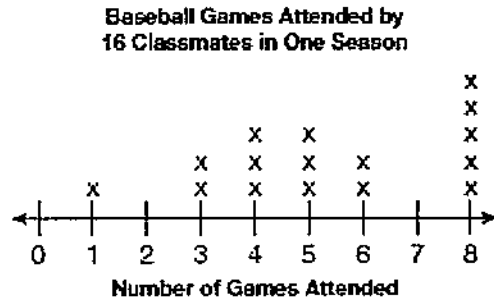
Mark the best answer.

1. What is the value of the underlined digit in 12.094?

A nine
B nine tenths
C nine hundredths
D nine thousandths
2. A basketball team played 8 tournament games. The same number of people attended each game. If 16,000 people attended all of the games, how many people attended each game?

A 20 people
B 200 people
C 2,000 people
D 20,000 people
3. Which is the best estimate for $987 \div 3,112$?
4. Find $23.1 - 2.56$.
5. The tail of an airplane is 62 feet, 10 inches tall. How many inches tall is the tail?

6. Use the line plot below to answer the question.



How many classmates attended 5 or more baseball games?

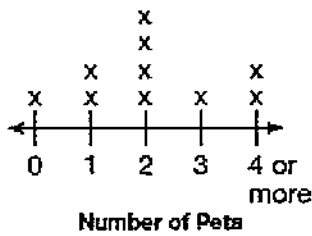
- A 10
B 9
C 8
D 3
7. Which of the following is the number 16 expressed in exponential notation?
- A 4^4
B 4^2
C 4^3
D 16^2

8. Becky bought 5 pounds of bananas. How many ounces of bananas did Becky buy?

1 pound = 16 ounces

9. Mrs. Sample and her 30 students are collecting box tops to help buy classroom equipment. The total number of box tops collected is found by evaluating the expression $30t + 20$. If $t = 6$, what is the value of the expression?
- A 56
B 165
C 180
D 200
10. Use number sense. Which of the following shows the decimal point placed correctly for the product?
- $$78.64 \times 0.48 = t$$
- A 3.77472
B 37.7472
C 377.472
D 3,774.72

11. A survey was taken in Mr. Musial's class about the number of pets students owned. Use the line plot below to answer the question.



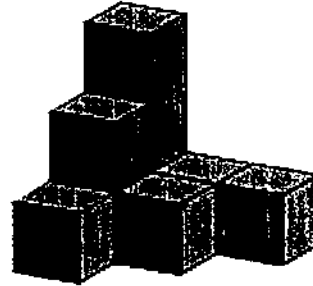
How many people responded to the survey?

- A 10
 - B 9
 - C 8
 - D 4
12. Simplify the expression below.

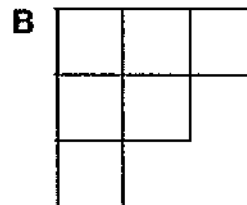
$$23 + 5.6 \times 2$$

HINT: Order of Operations

For 13–14, use the solid.



13. Which of the following is the top view of the solid?



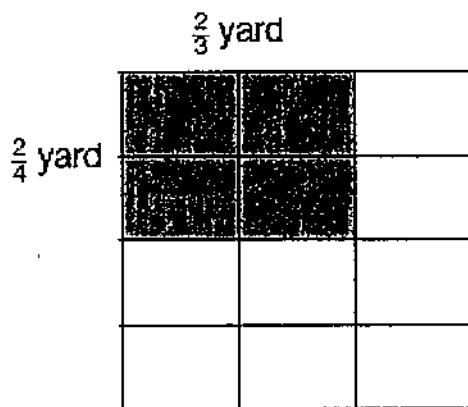
14. Find the volume of the solid.

HINT: The volume of each cube is 1 cubic unit.

15. Which is the most reasonable estimate for $551 \div 63$?

- A 8
- B 9
- C 80
- D 90

16. Use the model below to find the area of the shaded region.



- A $\frac{4}{7}$ square yards
- B $\frac{1}{2}$ square yards
- C $\frac{1}{3}$ square yards
- D $\frac{1}{4}$ square yards

17. Find $912 \div 38$.

18. Compare. Which symbol belongs in the circle?

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

- A =
- B <
- C >
- D \times

19. Which polygon has 4 sides?

- A Pentagon
- B Hexagon
- C Octagon
- D Quadrilateral

20. Find 2.5×165 .

- A 312.5
- B 412.5
- C 5,225
- D 5,255

21. Which fraction is equivalent to the fraction of the figure that is shaded?



- A $\frac{9}{21}$
- B $\frac{3}{6}$
- C $\frac{4}{7}$
- D $\frac{7}{3}$

22. Fatima has $\frac{1}{2}$ gallon of milk. She needs to pour 6 glasses of milk. What fraction of a gallon should she pour into each glass?

- A $\frac{1}{2}$ gallon
- B $\frac{1}{4}$ gallon
- C $\frac{1}{8}$ gallon
- D $\frac{1}{12}$ gallon

23. Find $91.2 \div 10$.

24. Which is $\frac{18}{8}$ written as a mixed number in simplest form?

25. Find $\frac{7}{10} - \frac{1}{5}$.

- A $\frac{1}{2}$
- B $\frac{3}{10}$
- C $\frac{2}{10}$
- D $\frac{9}{10}$

26. Replace each addend with 0, $\frac{1}{2}$, or 1. What is the best estimate for the sum of $\frac{1}{8} + \frac{8}{9}$?

- A 0
- B 1
- C 2
- D 3

27. Jackie walked $1\frac{1}{2}$ miles from her home to the park, then 2 miles around the park, and then back home. How many miles did Jackie walk?

- A $3\frac{1}{2}$ miles
- B $4\frac{1}{2}$ miles
- C 5 miles
- D 6 miles

28. Bridget found a piece of wood that measures 52 centimeters long. What is the length of the wood in millimeters?

1 centimeter = 10 millimeters

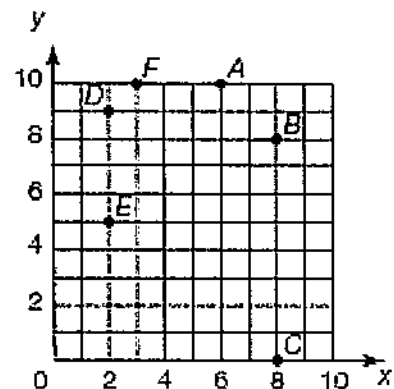
29. How are a square and a rhombus alike?

- A Both have right angles.
- B A square has acute angles.
- C Both have 4 sides with different lengths.
- D Both have sides that are equal in length.

30. Which solid figure does the object resemble?



31. Which two points have a vertical distance of 4 units between them?



32. Find $\$14.80 \div 4$.
- A \$0.35
 - B \$0.37
 - C \$3.45
 - D \$3.70
33. Estimate $239 + 1,058 + 560$ by rounding to the nearest hundred.
34. Which decimal is less than 7.805?
- A 78.05
 - B 7.850
 - C 7.815
 - D 7.585
35. Find the product below.
- 437×16
36. The winning time for the first dash of a race was 11.7 seconds. Second place was 1.9 seconds slower. What was the finish time for the second place runner?
- A 9.8 seconds
 - B 12.6 seconds
 - C 13.5 seconds
 - D 13.6 seconds
37. Which is 6,120,888 rounded to the nearest thousand?
38. Which is the best estimate for 159×208 ?
- A 30,000
 - B 32,000
 - C 50,000
 - D 80,000

39. Which is the standard form for $6 \times 100,000 + 8 \times 10,000 + 2 \times 100 + 4$?
- A 6,824
 - B 608,204
 - C 680,024
 - D 680,204

40. Name the ordered pair for point *H*.

