VIRGINIA STANDARDS OF LEARNING

Spring 2009 Released Test

GRADE 5 MATHEMATICS

Form M0119, CORE 1

Property of the Virginia Department of Education

Directions

Read each question and choose the best answer.

SAMPLE

What is 17 rounded to the nearest ten?

A   10
B   15
C   20
D   25

1   **6.48 ÷ 4 =**

    A 0.162

    B 1.62

    C 16.2

    D 162

2 **Last year, Linda scored at least 16 points in every basketball game in which she played. She played in a total of 13 games last year. What is the least number of points she could have scored last year?**

    F 29

    G 108

    H 164

    J 208

3 **What is the sum of $3\frac{1}{4}$ and $3\frac{1}{3}$?**

    A $6\frac{1}{12}$

    B $6\frac{2}{7}$

    C $6\frac{7}{12}$

    D 7

4 A group planted 3,619 flowers last year. This year, they planted 2,485 flowers. How many more flowers did the group plant last year than this year?

F 1,124

G 1,134

H 1,274

J 6,104

5 A male Siberian tiger is 3.3 meters long. A female Siberian tiger is 2.6 meters long. What is the difference in these lengths?

A 0.7 meter

B 1.3 meters

C 1.7 meters

D 5.9 meters

6 $846 \div 7 =$

F 121 R1

G 120 R6

H 112 R2

J 12 R6

7   31.514
     − 24.607

    A 6.907
    B 6.913
    C 7.107
    D 7.113

8 **Mrs. Burns gives her 4 children a total of $60 per week for their allowance. How much money should each child receive if they share the $60 equally?**

    F $10
    G $15
    H $24
    J $30

9 $\dfrac{1}{2} - \dfrac{1}{3} =$

    A $\dfrac{0}{1}$

    B $\dfrac{1}{6}$

    C $\dfrac{2}{5}$

    D $\dfrac{5}{6}$

GO ON

10 $20\overline{)8460}$

    F   42 R6

    G   402 R6

    H   403

    J   423

11   **0.505 + 0.314 is *closest* to —**

    A   0.6

    B   0.7

    C   0.8

    D   0.9

12   **The first week a printer was used, it produced 34,581 pages. The next week the printer produced 40,586 pages. What was the total number of pages the printer produced in these two weeks?**

    F   6,005

    G   14,005

    H   75,167

    J   85,167

Do not turn the page until you are told.

STOP

13 **Which set of fractions is ordered from *least* to *greatest*?**

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

B $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{3}{4}$

C $\frac{1}{3}, \frac{1}{2}, \frac{3}{4}, \frac{1}{4}$

D $\frac{3}{4}, \frac{1}{4}, \frac{1}{3}, \frac{1}{2}$

14 **What is the place value of the 7 in 594.237 ?**

    F Ones

    G Tenths

    H Hundredths

    J Thousandths

15 **How is 0.372 written in words?**

  A   Three hundred seventy-two thousandths
  B   Three and seventy-two thousandths
  C   Three hundred seventy-two hundredths
  D   Three hundred seventy-two

16 **Which decimal below has the same value as $\frac{6}{10}$?**

  F   6.10
  G   6.0
  H   0.6
  J   0.06

17 **Which number is two hundred and three thousandths?**

  A   200.003
  B   200.03
  C   200.3
  D   203.000

18 **Which is a true statement?**

    F $1.327 > 1.618$

    G $1.443 < 1.389$

    H $1.536 > 1.254$

    J $1.712 < 1.563$

19 **What is the value of the digit 5 in 1.59 ?**

    A   5 tenths

    B   5 ones

    C   5 tens

    D   5 hundredths

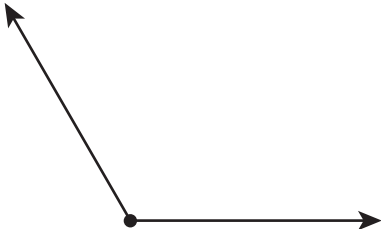**20** **When rounded to the nearest tenth, which of the following decimal numbers would round to 9.6 ?**

    F   9.52

    G   9.56

    H   9.67

    J   9.69

GO ON

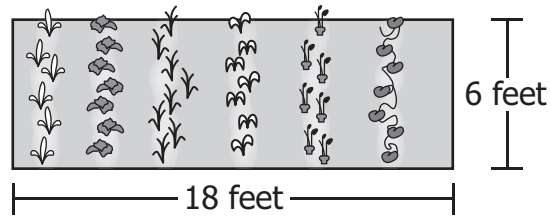**21** **Which angle measures *closest* to 41° ?**

A
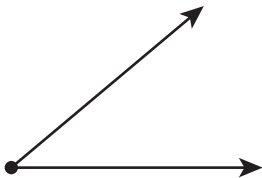
B

C
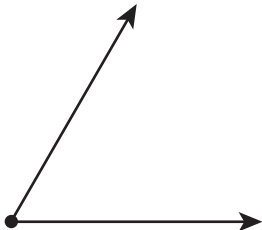
D
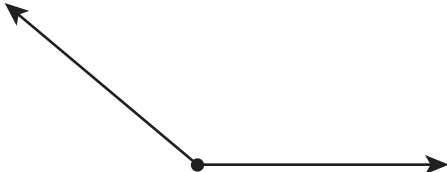
22 The picture shows a rectangular garden Jerri and Samantha are planning for their science project. What is the perimeter of the garden?


6 feet

18 feet

F   108 ft

G   48 ft

H   24 ft

J   12 ft

23 Anita and her family drove to Virginia Beach. They left home at 9:15 a.m. They arrived at Virginia Beach at 5:17 p.m. Which of the following is *closest* to the total time it took them to drive from home to Virginia Beach?

A   3 hours, 8 minutes

B   4 hours, 2 minutes

C   8 hours, 2 minutes

D   14 hours, 32 minutes
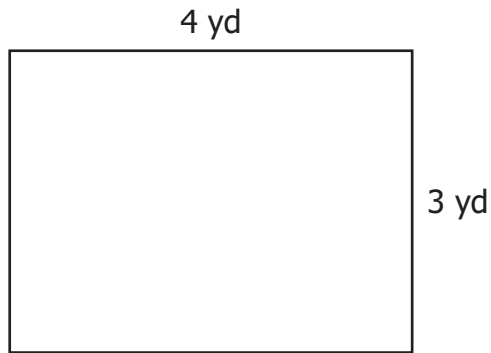
24 **Which two types of angles are used to form this triangle?**
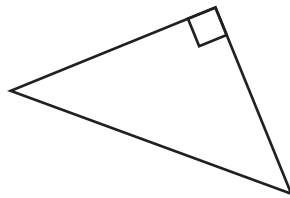
    F   Acute, obtuse

    G   Acute, right

    H   Obtuse, acute

    J   Obtuse, right

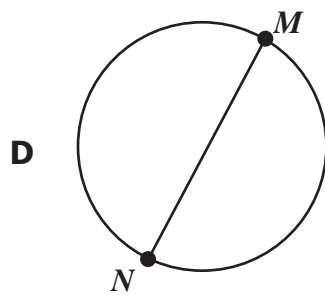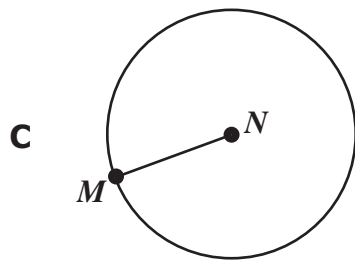**25** **In which picture is Figure 2 a reflection (flip) of Figure 1 across the dashed line?**

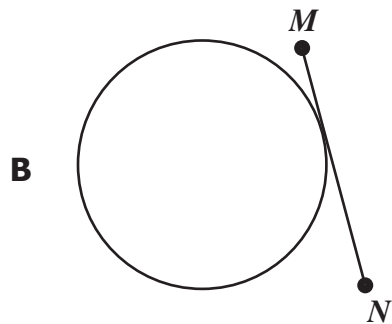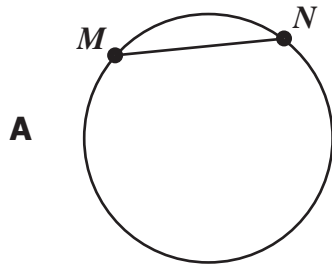
A

B

C

D

26

4 yd

3 yd
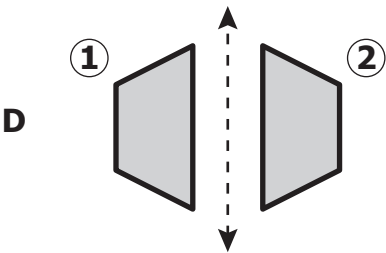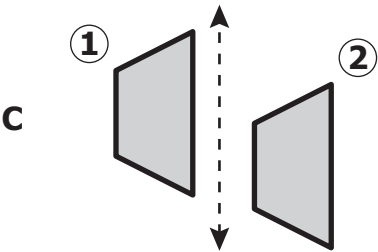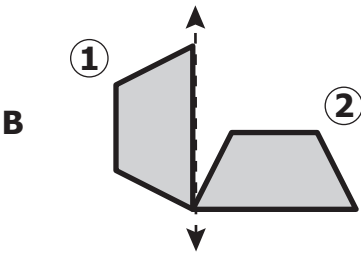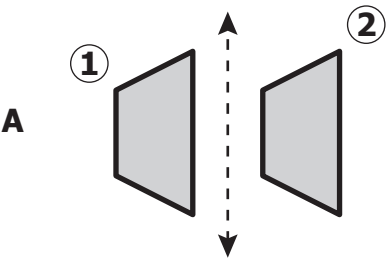
The area of the field shown in the picture is 12 —

F   square inches

G   pounds

H   square yards

J   meters

27 Which illustration *best* shows $\overline{MN}$ as the radius of the circle?

A

B

C

D

28 Meghan measured the mass of an object in grams. Meghan *most likely* measured a —

    F   car

    G   chair

    H   desk

    J   pencil

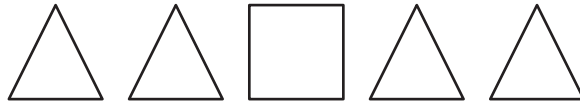**29** The picture shows six points on a grid.
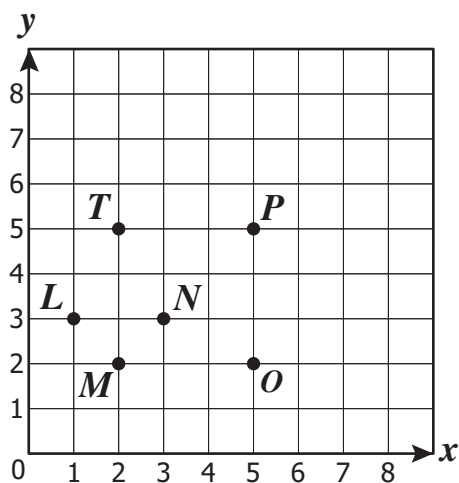
Which three points can be connected to form a right angle?

    A   Points T, L, and N

    B   Points L, P, and T

    C   Points N, O, and P

    D   Points M, O, and P

30 **The picture below shows all the faces of a solid.**

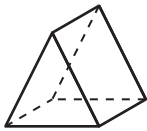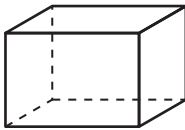**Which solid could be formed by the faces shown?**

F
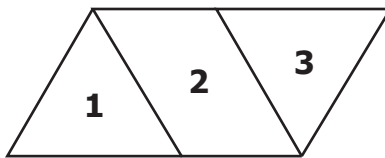
G

H

J

31

When section 3 is removed from the parallelogram shown, which of the following *best* describes the new figure?

A   Kite
B   Rhombus
C   Trapezoid
D   Rectangle

32   Which appears to show two congruent shapes?

F

G

H

J
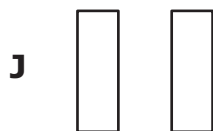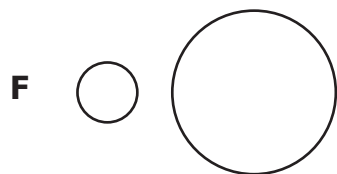
33 **Joe wants to do something fun this weekend.**

Weekend Options

Event	Day
Movie	Friday
Concert	Saturday
	Sunday

Which diagram shows all possible combinations Joe has if he picks 1 event and 1 day from the chart?

A

Movie —Friday

Concert ⟨ Saturday / Sunday

B

Movie ⟨ Friday / Saturday

Concert ⟨ Saturday / Sunday

C

Movie ⟨ Friday / Saturday / Sunday

Concert ⟨ Friday / Saturday

D

Movie ⟨ Friday / Saturday / Sunday

Concert ⟨ Friday / Saturday / Sunday
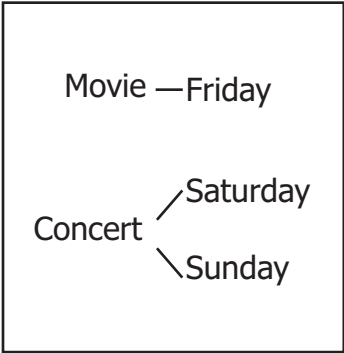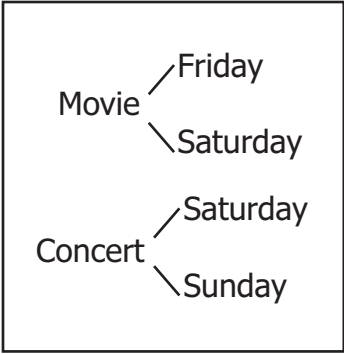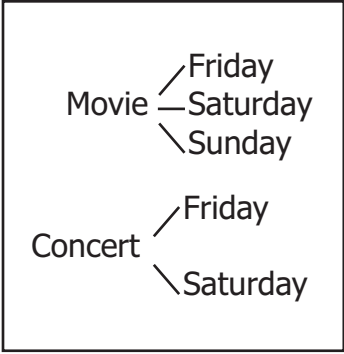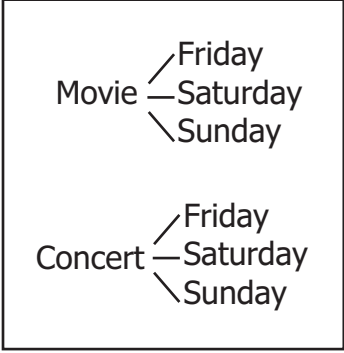
34 **Celeste has a 12-sided solid with sides numbered 1 through 12.**
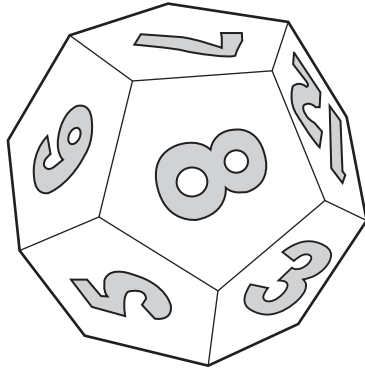
What is the probability that she will roll a 4, 5, or 6 on the first roll?

F $\frac{3}{12}$

G $\frac{4}{12}$

H $\frac{5}{12}$

J $\frac{6}{12}$

35 The stem-and-leaf plot shows the grades some students in Mr. Castillo's class earned on their last math quiz.

Grades on Math Quiz

Stem	Leaf
6	7, 8, 9
7	2, 2, 2, 3, 6, 9
8	3, 4, 4, 6
9	1, 8

Key: 8|4 means 84.

Based on data in the stem-and-leaf plot, what is the total number of students who earned a grade of 70 or higher on their last math quiz?

A 3

B 6

C 9

D 12

36 Mr. Copeland made a chart to display the number of each kind of prize he had in his prize box.

Prizes in the Prize Box

Kind of Prizes	Number
Balls	10
Puzzles	7
Lollipops	18
Poppers	15
Squirt rings	7
Stickers	21
Cars	6

What is the mode of the numbers in the chart?

F   7

G   10

H   12

J   15

37 Students in Mr. Malone's class voted for their one favorite sea animal. The results are shown below.

Favorite Sea Animals
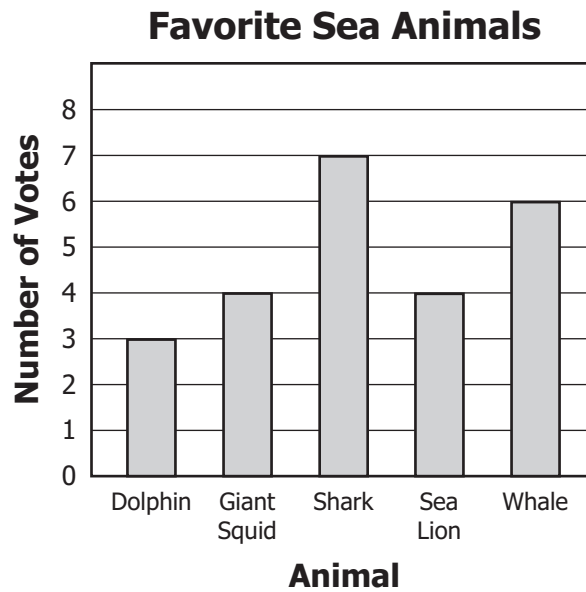
The greatest difference in the number of votes received was between the —

A Giant Squid and Shark

B Sea Lion and Whale

C Giant Squid and Whale

D Dolphin and Shark

38 **Pieces of paper numbered 1 through 31 are in a bag. Sal drew a piece of paper from the bag without looking. Which question could be answered using probability?**

    F   How many odd numbers are written on the pieces of paper?

    G   Is the number Sal drew from the bag likely to be less than 10 ?

    H   How many pieces of paper are in the bag before any are drawn out?

    J   After Sal drew a piece of paper from the bag, how many pieces were left?

39 **The chart shows the number of each color of counting chip Mr. Kellas placed in an empty box. All the chips were the same size and shape.**

Counting Chips

Color	Number in Box
Red	6
Yellow	1
Green	2
Purple	6
White	1

Ross is going to take 4 counting chips out of the box without looking. Which combination of counting chips could Ross take from the box?

    A   2 purple, 2 white

    B   2 red, 2 yellow

    C   1 white, 3 purple

    D   3 green, 1 yellow

40 **Peggy spins the arrow on the spinner shown.**
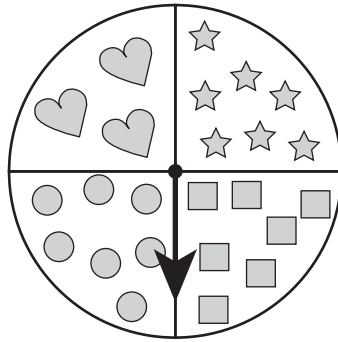
What is the probability that the arrow will point to the section containing hearts on the first try?

F 1 out of 3

G 1 out of 4

H 3 out of 4

J 3 out of 24

41 **Which of the following can be solved using the open sentence** $s - 6 = ?$

A Pablo has 6 more vacation days than Sandra. If s represents the number of vacation days Sandra has, how many vacation days does Pablo have?

B Pablo has 6 times more vacation days than Sandra. If s represents the number of vacation days Sandra has, how many vacation days does Pablo have?

C Pablo has 6 fewer vacation days than Sandra. If s represents the number of vacation days Sandra has, how many vacation days does Pablo have?

D Sandra has 6 times more vacation days than Pablo. If s represents the number of vacation days Sandra has, how many vacation days does Pablo have?

42 **Which represents the unknown value in the following statement?**

$$d \div 2 = 11$$

F d
G $\div$
H 2
J 11

43 **What is the missing number in the following numerical pattern?**

9, 13, 17, 21, 25, _?_, 33

A 27
B 29
C 31
D 37

**44** A number machine uses a rule to change numbers. The table shows the results.

Number Machine Results

In (k)	Out (m)
2	14
5	17
7	19
11	23

Which could be the rule the number machine used?

F $k \div 12 = m$

G $k \times 12 = m$

H $k - 12 = m$

J $k + 12 = m$

45 Terry ate 3 fewer pretzels than Susan. If p represents the number of pretzels Susan ate, which could be used to determine the number of pretzels Terry ate?

A $p + 3 = \square$

B $p - 3 = \square$

C $p \times 3 = \square$
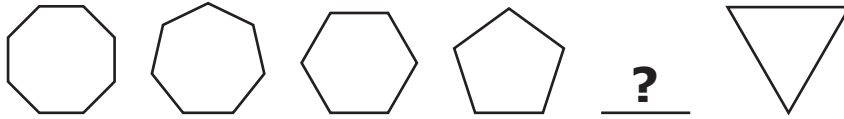
D $p \div 3 = \square$

46 **Paula and John played a number game. When Paula said a number, John used a rule to find the number he would reply. The pictures show what happened.**
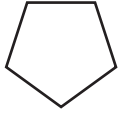
Paula said: John replied:

4   12

5   15

9   27

25   75
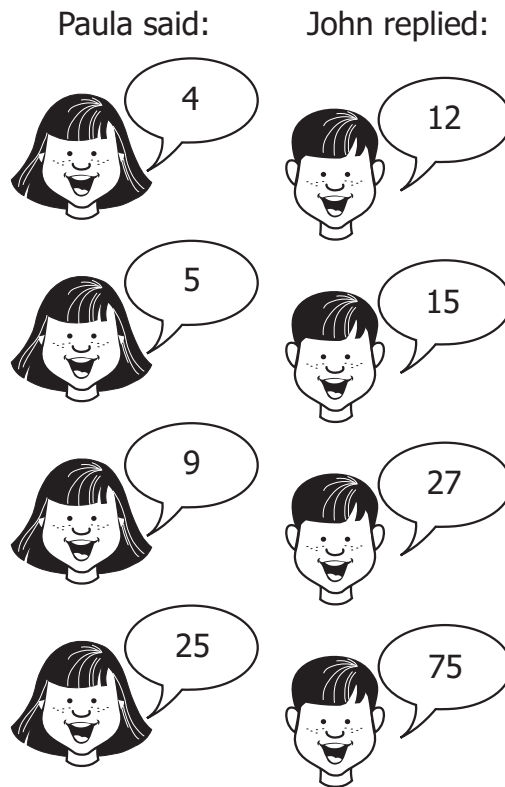
Which of the following could be the rule John used?

F   Add 8

G   Add 50

H   Multiply by 3

J   Multiply by 5

47 **What is the 5th shape in the pattern?**

Octagon, Heptagon, Hexagon, Pentagon, ? , Triangle (inverted)

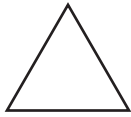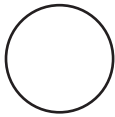**A** Pentagon

B Square

C Triangle

D Circle
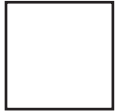
48 **Nick is paid $6.00 per hour, and last week he earned $150.00. What does the x represent in the equation $6x = 150$?**

F The number of days Nick worked last week

G The number of hours Nick worked last week

H The number of days Nick worked last month

J The number of hours Nick worked yesterday

49 **William's age is 9 times Susan's age. If Susan's age is s, which expression best represents William's age?**

    A $9 \times s$

    B $9 + s$

    C $s - 9$

    D $s \div 9$

50 **Which of these could be solved by using the open sentence $6 + z = 12$?**

    F   Fred caught 6 fish every day for 12 days. How many fish did he catch all together?

    G   Fred caught 6 fish before lunch. He caught 12 more after lunch. What was the total number of fish he caught?

    H   Fred caught 6 fish before lunch. He caught more fish after lunch. At the end of the day, he had 12 fish. How many fish did he catch after lunch?

    J   Fred caught 12 fish. He put them in 6 bags. If each bag had the same number of fish, how many fish were in each bag?

STOP