VIRGINIA STANDARDS OF LEARNING

Spring 2007 Released Test

GRADE 5 MATHEMATICS

Form M0117, CORE 1

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Directions

Read and solve each question. Then mark the space on your answer document for the best answer.

SAMPLE

What is 17 rounded to the nearest ten?

A 10
B 15
C 20
D 25

1 $6{,}048 \div 8 =$

A 756
B 746
C 664
D 654

2 **The table shows the number of pretzels a factory made in March and April.**

Pretzels Made at a Factory

Month	Number Made
March	962,458
April	879,581

How many more pretzels did the factory make in March than in April?

F 82,877
G 82,977
H 117,123
J 117,137

3 Bender's Bakery sells muffins for $2 each, including tax. Diane bought 4 blueberry muffins and 3 cranberry muffins. What was the total cost of the muffins Diane bought?

A $24
B $14
C $9
D $7

4 $\mathbf{5.2} + \mathbf{1.073} =$

F 0.6273
G 1.125
H 5.075
J 6.273

5 Mr. Collins made 20 birdhouses to sell at a carnival. He earns $15 for each birdhouse he sells. How much will Mr. Collins earn if he sells all 20 birdhouses?

A $35
B $55
C $300
D $400

6

$$\begin{array}{r} \mathbf{0.38} \\ \times\ \mathbf{0.9} \\ \hline \end{array}$$

F 0.0342

G 0.342

H 3.42

J 34.2

7

$$\begin{array}{r} \mathbf{3\frac{5}{6}} \\ -\ \mathbf{\frac{2}{3}} \\ \hline \end{array}$$

A $2\frac{1}{6}$

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

C $3\frac{1}{6}$

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

8 $309 \div 7 =$

F 51 R2
G 44 R1
H 41 R2
J 32 R5

9 $72.3 - 19.6 =$

A 52.7
B 52.8
C 62.7
D 67.3

10 **Harry had 500 pennies in a jar. He sorted the pennies into 25 different stacks. Each stack had the same number of pennies. How many pennies were in each stack?**

F 20
G 475
H 525
J 12,500

11 There are 914 students enrolled in Lakeview Elementary School. Frederich Elementary School has 276 fewer students enrolled. How many students are enrolled at Frederich Elementary School?

A 1,190
B 762
C 642
D 638

12 $7.206 - 5.92 =$

F 6.614
G 2.286
H 2.114
J 1.286

Do not turn the page until your teacher tells you to do so.

13 Which of the fractions shown below has the same value as 0.7?

A $\frac{1}{7}$

B $\frac{7}{100}$

C $\frac{7}{10}$

D $\frac{3}{4}$

14 The table shows the distance that four athletes jumped in the long jump.

Athletes' Long Jumps

Name	Distance Jumped (in Feet)
Joshua	10.318
Kara	10.364
Louis	10.029
Sara	10.151

Which of the following is a true statement?

F $10.364 > 10.029$

G $10.029 > 10.151$

H $10.318 > 10.364$

J $10.151 > 10.318$

15 Which is true?

A $6.980 > 6.981$

B $6.793 > 6.981$

C $6.982 > 6.981$

D $6.895 > 6.981$

16 Which fraction goes in the blank so that this list is in order from *least* to *greatest*?

$$\frac{1}{4},\ 0.4,\ \_\_\_,\ \frac{2}{3},\ 0.75$$

F $\frac{1}{5}$

G $\frac{1}{2}$

H $\frac{5}{6}$

J $\frac{7}{8}$

17 How is 4.026 written in words?

A Four and twenty-six hundredths
B Four and twenty-six thousandths
C Four thousand, twenty-six
D Four hundred twenty-six

18 What is 29.74 rounded to the nearest tenth?

F 29.0
G 29.6
H 29.7
J 30.0

19 Which number is read "two and thirteen hundredths"?

A 0.213
B 2.013
C 2.13
D 213

20 Which group of numbers is listed in order from *least* to *greatest*?

F $0.1, \frac{9}{10}, 0.4, \frac{3}{4}$

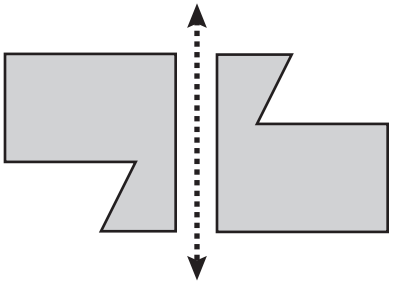
G $0.1, 0.4, \frac{3}{4}, \frac{9}{10}$

H $0.1, 0.4, \frac{9}{10}, \frac{3}{4}$

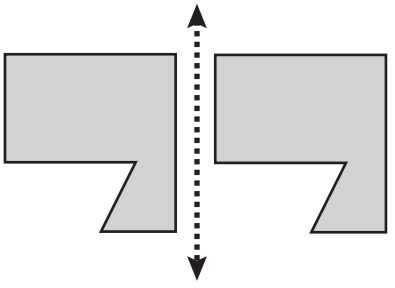
J $0.1, \frac{3}{4}, 0.4, \frac{9}{10}$

21 Which of the following shows a reflection (flip) of the shaded shape across the heavy dotted line?

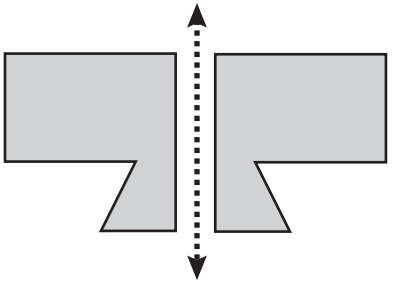
A



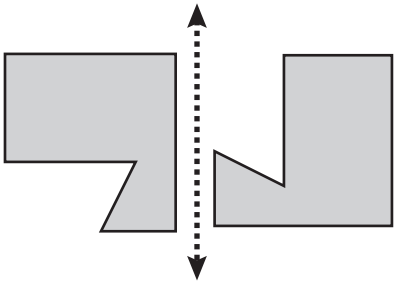
B



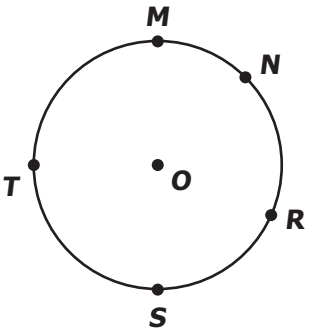
C



D



22 In the figure, point *O* is the center of the circle.



Which two points appear to make a diameter when connected with a straight line?

F *M* and *S*
G *T* and *R*
H *O* and *R*
J *N* and *S*

23 Which unit could be used for measuring the amount of liquid needed to fill a small teacup?

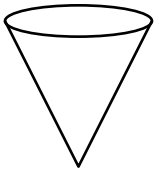
A Gram
B Pound
C Meter
D Milliliter

24 What is the perimeter of a rectangle that is 6 inches long and 4 inches wide?

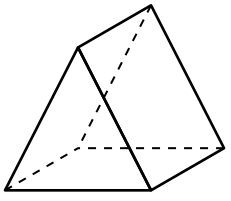
F 10 inches
G 20 inches
H 24 inches
J 48 inches

25 Which of the following has exactly 5 vertices?

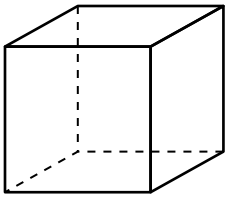
A



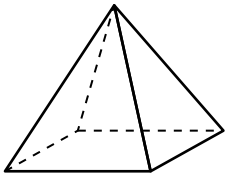
B



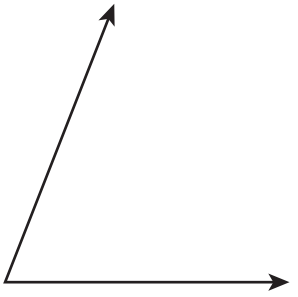
C



D

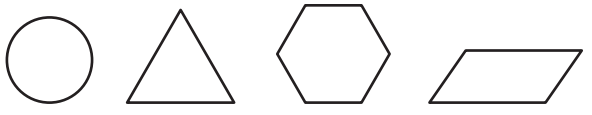


26 Which is *closest* to the measure of the angle?



F 25°
G 45°
H 80°
J 90°

27



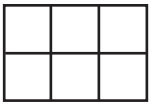
S ***T*** ***W*** ***X***

Which figure is a quadrilateral?

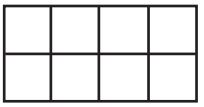
A Figure *S*
B Figure *T*
C Figure *W*
D Figure *X*

28 Which figure has an area of 8 and a perimeter of 12?

F

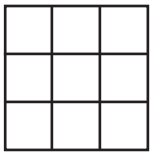


G



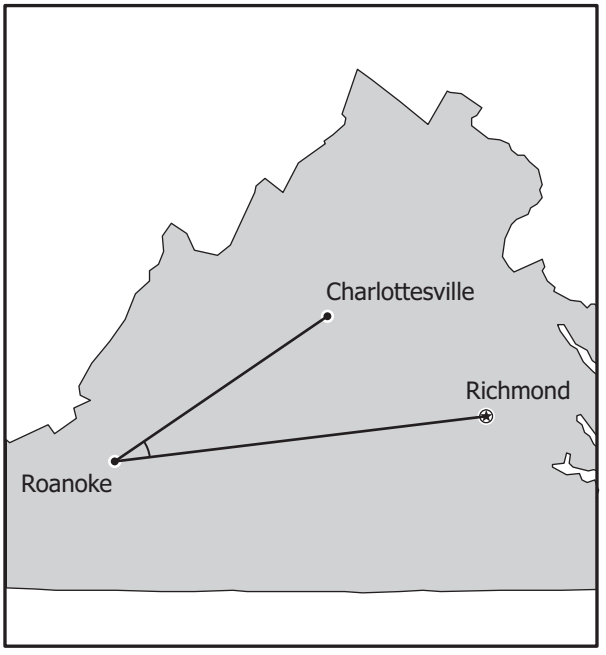
H

J



29 The map shows Frank's flight path from Charlottesville to Roanoke, and then from Roanoke to Richmond.

A Map of Virginia



Which *best* describes the angle formed by the two flight paths?

A Acute
B Obtuse
C Right
D Straight

30 Tom left home at 7:15 a.m. to go to work. He returned home at 4:45 p.m. What is the total amount of time Tom was away from home?

F 3 hours, 30 minutes
G 7 hours, 30 minutes
H 8 hours, 30 minutes
J 9 hours, 30 minutes

31 Which statement is true?

A A cone is a type of cylinder.

B A cube is a type of rectangular prism.

C A square-based pyramid is a type of cube.

D A rectangular prism is a type of cylinder.

32

Use your inch ruler to help you answer this question: What is the length of this line segment?

F $1\frac{1}{4}$ inches

G $1\frac{3}{4}$ inches

H 2 inches

J $4\frac{1}{2}$ inches

33 A group of students were asked to name their favorite circus animal. The table shows the results.

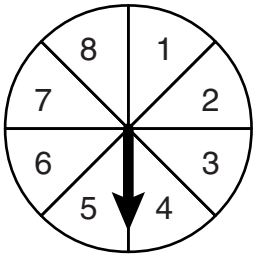
Favorite Circus Animals

Animal	Number of Students
Lion	48
Tiger	36
Bear	32
Elephant	54
Horse	40

What is the mean (average) of this set of data?

A 42
B 40
C 32
D 16

34 Brent is using the spinner shown below to play a game. Each section of the spinner is the same size.



What is the probability the arrow will land on a section labeled 4 or 5 on Brent's next spin?

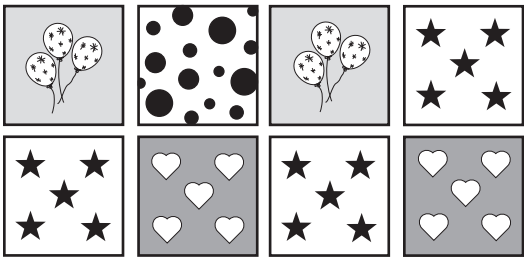
F $\frac{1}{8}$

G $\frac{2}{8}$

H $\frac{1}{6}$

J $\frac{2}{6}$

35 Mrs. Garrison has these sheets of wrapping paper.



Which of the following questions about these sheets of wrapping paper could you use probability to solve?

A How many different kinds of wrapping paper does Mrs. Garrison have?

B How many sheets of wrapping paper does Mrs. Garrison have?

C If Mrs. Garrison uses 1 sheet of wrapping paper, how many will be left?

D If Mrs. Garrison picks 1 sheet of wrapping paper without looking, what kind will it most likely be?

36 The table shows the number of pages Laura read each night for a week.

Number of Pages Read

Day	Su	M	Tu	W	Th	F	Sa
Pages	17	22	20	21	19	17	24

What number of pages is the mode of this set of data?

F 17

G 20

H 21

J 24

37 Matt has two coins to flip. Each coin has an equal chance of landing on heads or tails. Which question about the coins requires knowledge of probability?

A What will Matt buy with the two coins?

B What is the total value of the two coins Matt flipped?

C What year is stamped on each coin?

D What is the chance both coins will land on heads after one flip?

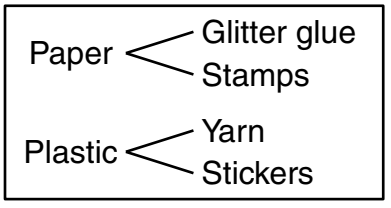
38 Martin will glue a design he made onto a paper or a plastic plate. Then he will decorate the plate with one of the materials listed in the chart below.

Plate Designs

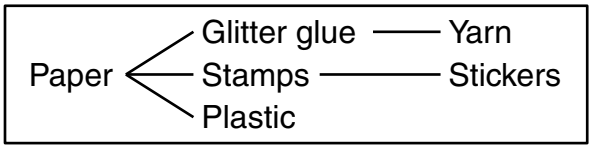
Kind of Plate	Materials
Paper Plastic	Glitter glue Stamps Yarn Stickers

Which tree diagram shows all the possible combinations of 1 kind of plate and 1 material that Martin can make?

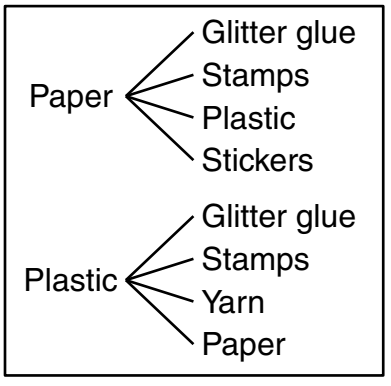
F



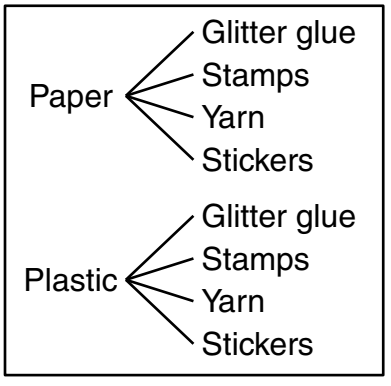
G



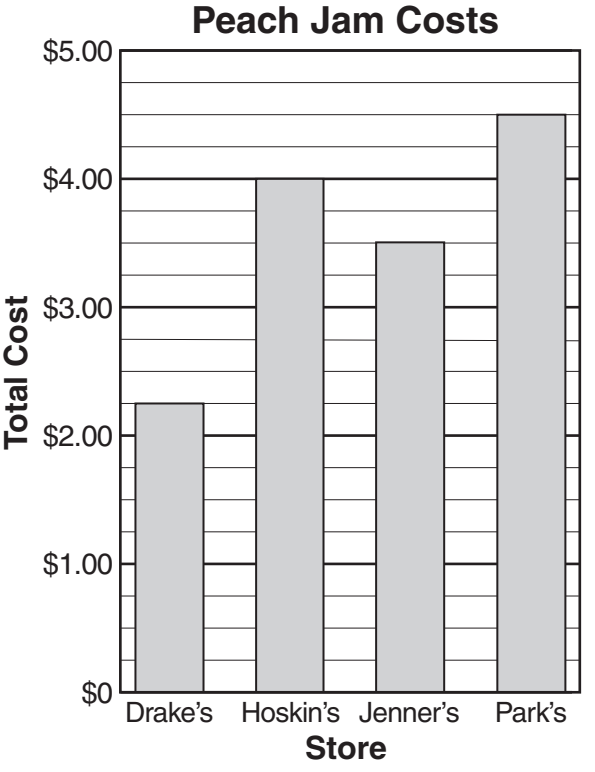
H



J



39 This graph shows the total cost of a large jar of Mindy's peach jam at four different stores.



Between which two stores was there the *greatest* difference in total cost?

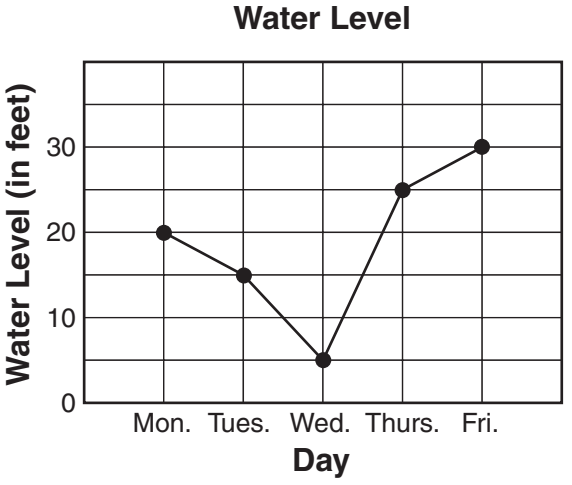
A Park's and Jenner's

B Hoskin's and Jenner's

C Drake's and Park's

D Jenner's and Park's

40 The graph shows how the water level below a bridge changed over a period of time.



How many feet lower was the water level on Wednesday than on Monday?

F 3 ft

G 5 ft

H 15 ft

J 25 ft

41 Which of these could be solved by using the open sentence $S - 7 = ?$

A Rita collected 7 more seashells than Henry. If *S* is the number of seashells that Henry collected, how many did Rita collect?

B Blanche collected 7 fewer seashells than Connie. If *S* is the number of seashells that Connie collected, how many did Blanche collect?

C Amity filled 7 boxes with seashells. If *S* is the number of seashells she put in each box, how many seashells did she use in all?

D Dylan needs 7 seashells more to complete his collection. If *S* is the number of seashells he has so far, how many will he have after he gets 7 more?

42 In the expression $m - 3$, the letter *m* represents —

F a subtraction symbol

G a number sentence

H a subtraction problem

J an unknown number

43 A rule was used to make the pattern shown below.

51, 45, 39, 33, 27, 21 . . .

Which could be the rule used to make the pattern?

A Subtract 6

B Subtract 7

C Divide by 6

D Divide by 7

44 A rule was used to make the pattern shown.

56, 49, 42, 35, 28, 21

Which could be the rule?

F Subtract 5
G Subtract 6
H Subtract 7
J Subtract 8

45 Marcus had twice as many jawbreaker candies as Lyndon. If *J* represents the number of jawbreaker candies Lyndon had, which number sentence could be used to find the number of these candies Marcus had?

A $J \div 2 = ?$
B $J \times 2 = ?$
C $J - 2 = ?$
D $J + 2 = ?$

46 Which represents the unknown value in the following statement?

$$t \times 3 = 36$$

F t
G $\times$
H 3
J 36

47 A number machine uses a rule to change numbers. The table shows what happened when four different numbers went into the same number machine.

Input (*x*)	Output (*y*)
3	9
4	12
9	27
15	45

Which of the tables below could be results from the same number machine?

A

Input (*x*)	Output (*y*)
5	11
6	12
7	13
8	14

B

Input (*x*)	Output (*y*)
5	15
6	18
7	21
8	24

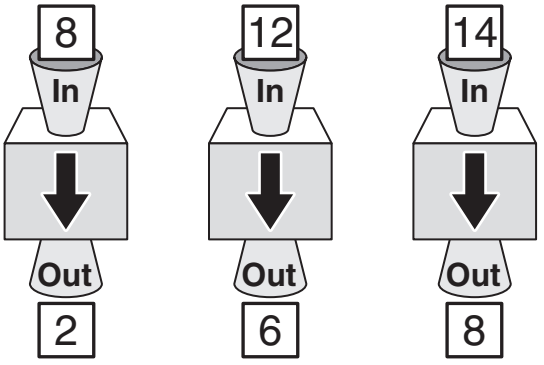
C

Input (*x*)	Output (*y*)
5	9
6	12
7	27
8	45

D

Input (*x*)	Output (*y*)
5	11
6	13
7	15
8	17

48 A number machine uses a rule to change numbers. The picture shows what happened when three different numbers went into the same number machine.



Which of the following could be the rule this number machine used?

F In $\div 2 =$ Out

G In $\div 4 =$ Out

H In $+ 4 =$ Out

J In $- 6 =$ Out

GO ON

49 If *n* represents a number, which means the same as the expression $n \div 7$?

A A number divided by seven
B A number multiplied by seven
C Seven more than a number
D Seven less than a number

50 Abel saw the tile pattern shown in the picture.

Which could be the rule used to make the tile pattern?

F Repeat the first 2 tiles in the same order
G Repeat the first 3 tiles in the same order
H Repeat the first 4 tiles in the same order
J Repeat the first 5 tiles in the same order

STOP