

VIRGINIA STANDARDS OF LEARNING

Spring 2007 Released Test

# GRADE 4 MATHEMATICS

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Form M0117, CORE 1

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**Directions**

Read each question and choose the best answer. Then mark the space on your answer document for the answer you have chosen.

**SAMPLE**

**Which number has a 9 in the ones place?**

- A** 9,555
- B** 5,955
- C** 5,595
- D** 5,559

- 1 The table shows the number of marbles Juan has in each of three jars.

Juan's Marbles

Jar	Number
A	121
B	37
C	180

Which is *closest* to the total number of marbles in the three jars?

- A 240
- B 340
- C 440
- D 540

2  $108 \div 6 =$

- F 16
- G 17
- H 18
- J 19

**3**       **$741,409 - 23,611 =$**

- A**    717,798
- B**    718,798
- C**    722,898
- D**    727,898

- 4**    **Mrs. Thomas bought  $\frac{5}{6}$  yard of red fabric and  $\frac{1}{2}$  yard of green fabric. How much more red fabric than green fabric did Mrs. Thomas buy?**

- F**     $\frac{4}{4}$  yard
- G**     $\frac{6}{8}$  yard
- H**     $\frac{5}{12}$  yard
- J**     $\frac{2}{6}$  yard

- 5 The number line below is marked with a heavy line segment.



Which difference is between 50,000 and 55,000 as shown on this number line?

- A  $89,362 - 45,486$
  - B  $89,362 - 35,486$
  - C  $89,362 - 25,486$
  - D  $89,362 - 15,486$
- 6 Which product is between 1,000 and 1,500 as shown on the number line?

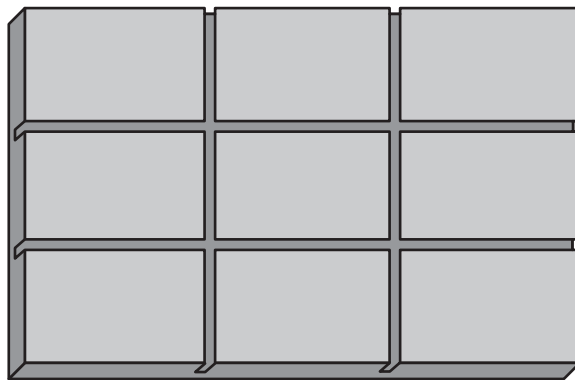


- F  $20 \times 25$
- G  $38 \times 32$
- H  $50 \times 38$
- J  $59 \times 36$

7       $45 \times 12 =$

- A    440
- B    530
- C    540
- D    550

8



Henry ate  $\frac{3}{9}$  of the chocolate bar pictured. What fraction of the chocolate bar is left?

- F     $\frac{6}{6}$
- G     $\frac{6}{9}$
- H     $\frac{3}{6}$
- J     $\frac{3}{9}$

**9**      **267,412**  
      **– 81,523**  
      **\_\_\_\_\_**

- A** 348,935
- B** 226,111
- C** 216,479
- D** 185,889

**10**      **0.62 + 0.69 =**

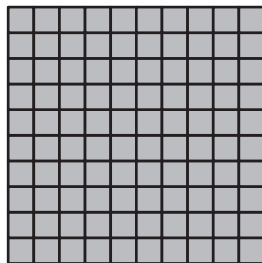
- F** 0.121
- G** 0.131
- H** 1.21
- J** 1.31



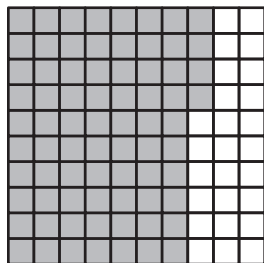
**11** Alyssa watched 3.5 hours of television last week. This week, she watched 4.7 hours of television. How many more hours did Alyssa watch television this week than last week?

- A** 0.2
- B** 0.8
- C** 1.2
- D** 8.2

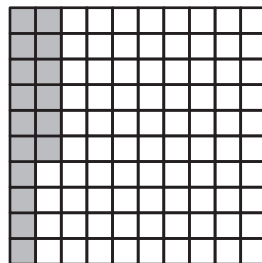
- 12** The model below is shaded to represent the number 1.



Each of the following models is shaded to represent a decimal number.



Model 1



Model 2

If the two decimals are added, what is the sum?

- F** 0.09
- G** 0.90
- H** 9.0
- J** 90.0

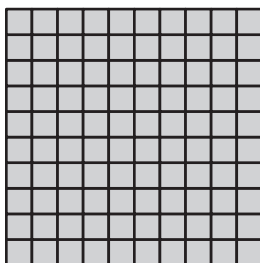
**Do not turn the  
page until your  
teacher tells you  
to do so.**



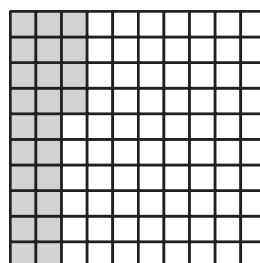
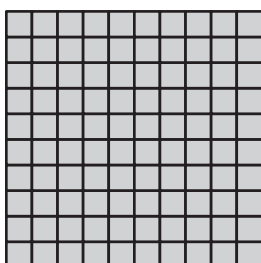
**13** A city has a population of 7,380,916. What is 7,380,916 rounded to the nearest hundred thousand?

- A** 7,000,000
- B** 7,380,900
- C** 7,400,000
- D** 8,000,000

**14** The model below represents one whole.

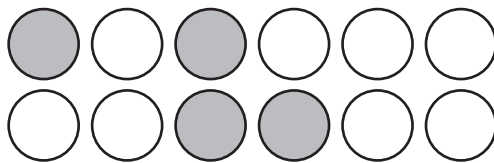


What number is represented by the following model?



- F** 1.024
- G** 1.24
- H** 12.4
- J** 124

- 15** A fractional part of this group of circles is shaded.



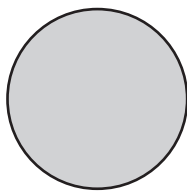
Which group of stars is shaded to represent a fraction with an equivalent value?



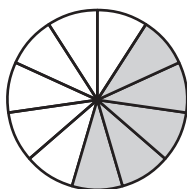
- 16** Which number has a 7 in the ten thousands place?

- F** 173,862
- G** 287,413
- H** 364,879
- J** 745,206

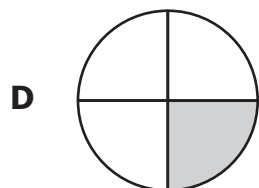
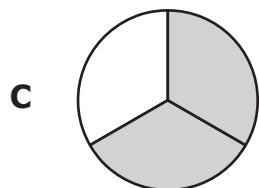
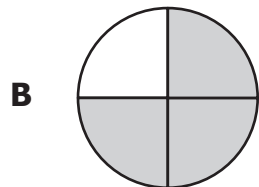
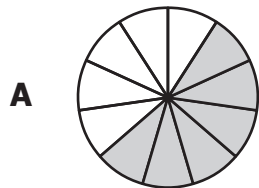
- 17 The model below is shaded to represent one whole.



The following model is shaded to represent a fraction of a whole.



Which is shaded to represent a fraction *less than* the fraction modeled above?



- 18 Exactly  $\frac{3}{5}$  of the ribbons Homer won were for 1st place. Which of the following could be the group of ribbons Homer won?

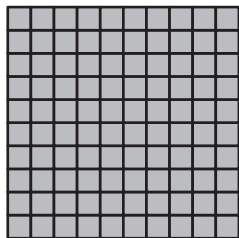


**19** What is **13.73** rounded to the nearest tenth?

- A** 13.0
- B** 13.7
- C** 13.8
- D** 14.0



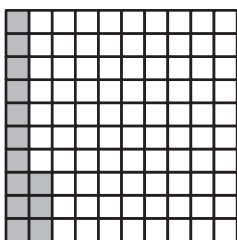
- 20 The model below is shaded to represent the number 1.



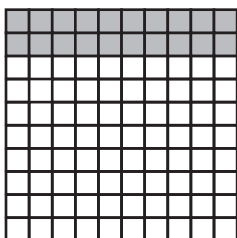
Which model represents the number that goes in the blank to make the statement below true?

$$0.23 < \underline{\hspace{1cm}}$$

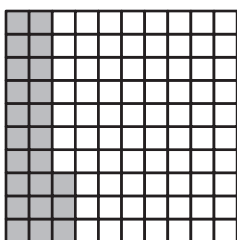
F



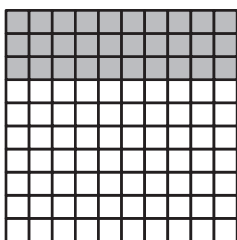
G



H



J





Which is *closest* to the length of the chain pictured above?

- A  $2\frac{5}{8}$  inches
- B  $3\frac{5}{8}$  inches
- C  $6\frac{1}{2}$  inches
- D  $7\frac{1}{2}$  inches

22 A quart is almost a —

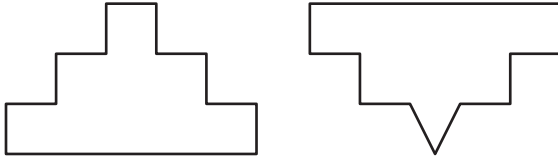
- F milliliter
- G centiliter
- H liter
- J kiloliter

23 The bicycle path at the city park is 1 mile long. Which of the following is *closest* to a distance of 1 mile?

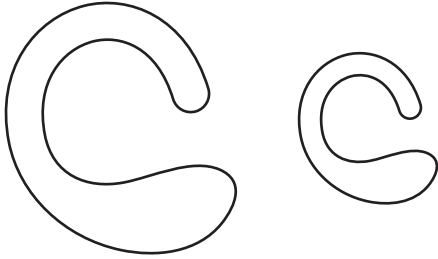
- A 1.5 kilometers
- B 1.5 meters
- C 1.5 millimeters
- D 1.5 centimeters

**24 Which appears to be a pair of congruent figures?**

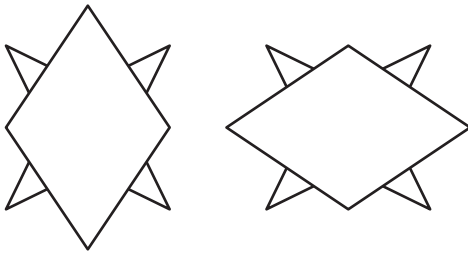
**F**



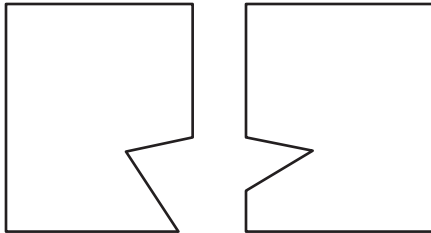
**G**



**H**



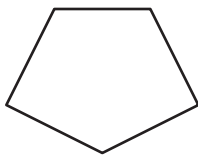
**J**



**25 Jackie plans to cover a tabletop with tiles. Which should Jackie know to make sure she buys enough tile?**

- A** The height of the table
- B** The perimeter of the tabletop
- C** The weight of the table
- D** The area of the tabletop

26



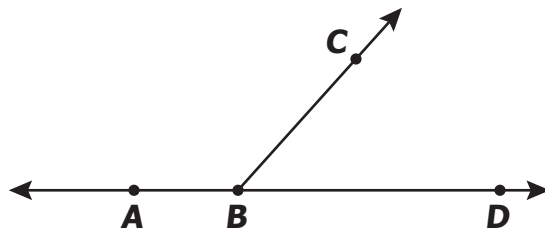
The sides of this polygon are *best* described as —

- F** rays
- G** points
- H** lines
- J** line segments

27 Anna bought 1 pound of butter. Which of the following is equivalent to 1 pound?

- A** 10 ounces
- B** 16 ounces
- C** 28 ounces
- D** 36 ounces

28 Which of the following is *not* pictured in the diagram?



- F** Ray  $BD$
- G** Line  $AD$
- H** Angle  $B$
- J** Line segment  $CD$

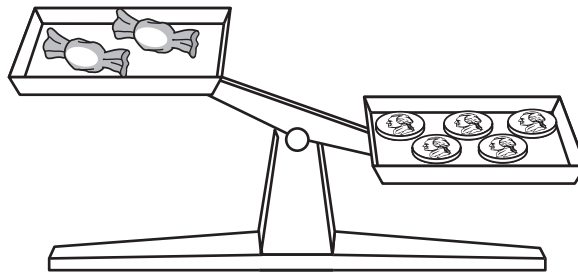
29 A scientist filled an eyedropper with vinegar. Which of the following amount would fit in an eyedropper?

- A** 10 milliliters
- B** 10 liters
- C** 1 kiloliter
- D** 1 liter

**30** A square is both a —

- F** rectangle and a triangle.
- G** parallelogram and a rhombus.
- H** triangle and a quadrilateral.
- J** polygon and a circle.

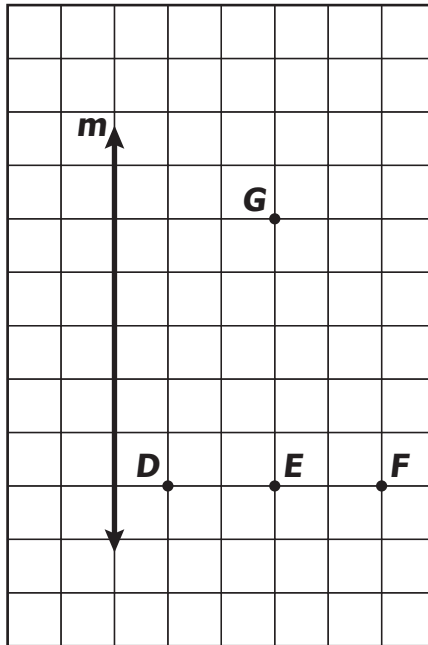
**31**



**If the mass of the 5 nickels is 25 grams, which measurement is *closest* to the total mass of the 2 pieces of candy?**

- A** 35 grams
- B** 30 grams
- C** 25 grams
- D** 20 grams

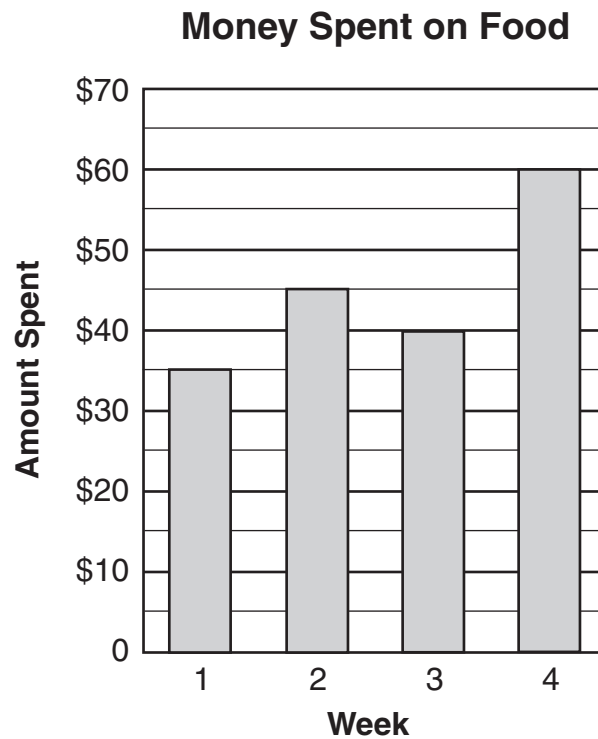
**32** Line  $m$  and four points are shown on the grid.



**Which two points appear to lie on the same line that is parallel to line  $m$ ?**

- F**  $G$  and  $D$
- G**  $D$  and  $E$
- H**  $G$  and  $E$
- J**  $F$  and  $D$

- 33** Elsa made the graph below to show the amount of money her family spent on food each week for one month.



**Between which two weeks was the difference in the amount spent on food closest to \$5?**

- A** Between week 1 and week 2
- B** Between week 2 and week 3
- C** Between week 1 and week 4
- D** Between week 2 and week 4



- 34** Terrell put 25 marbles in a bag. It is certain that the first marble taken from the bag will be red. Which is the number of red marbles in the bag?
- F** 0  
**G** 5  
**H** 20  
**J** 25

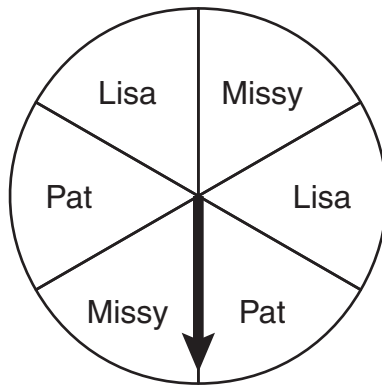
- 35** Jason rolls a cube that has a different one of the following shapes on each face.



What is the probability the cube will land on a face with a star on Jason's first roll?

- A**  $\frac{1}{6}$   
**B**  $\frac{1}{5}$   
**C**  $\frac{5}{6}$   
**D**  $\frac{6}{1}$

- 36 Pat and her friends will use the following spinner in a game. Each section of the spinner is the same size.



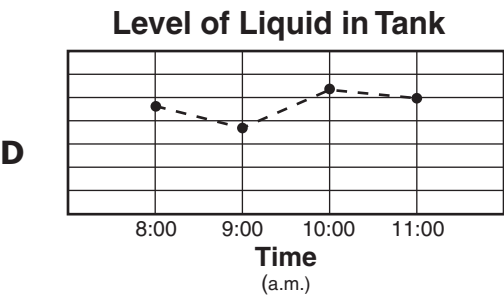
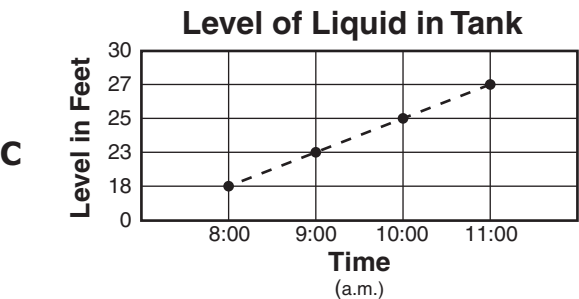
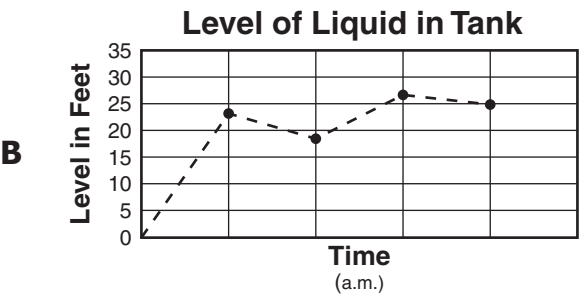
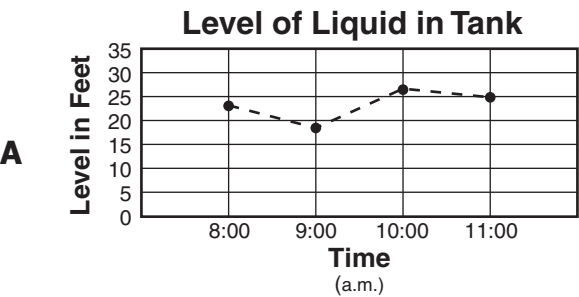
If Pat spins first, what is the probability the arrow will land on a section labeled Missy?

- F**  $\frac{1}{6}$   
**G**  $\frac{2}{6}$   
**H**  $\frac{2}{4}$   
**J**  $\frac{4}{6}$

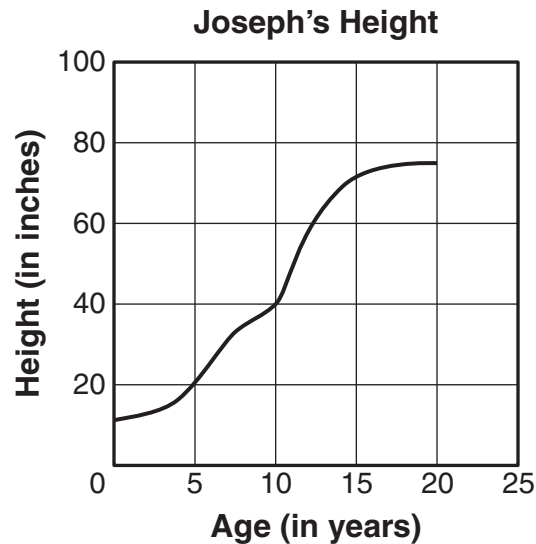
37 Mr. Charles measured and recorded the amount of liquid in a tank each hour for 4 hours. The table shows the results.

Level of Liquid in Tank	
Time (a.m.)	Level in Feet
8:00	23
9:00	18
10:00	27
11:00	25

Which *best* represents a correct graph of the information from the table?



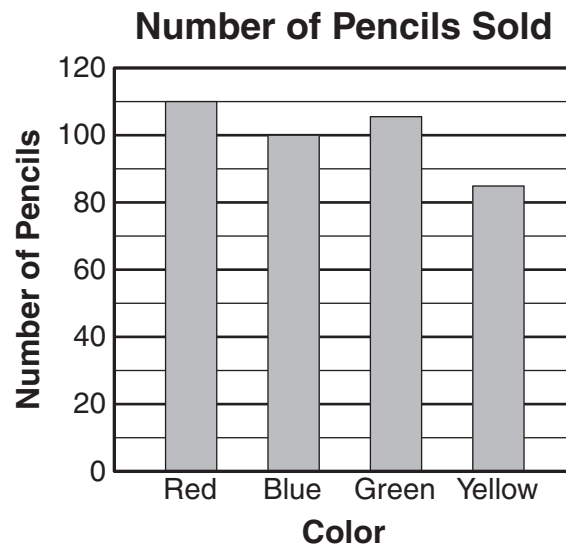
- 38 The line graph shows how Joseph's height changed as he grew.



Which of the following is *closest* to Joseph's height when he was 15 years old?

- F** 80 in.
  - G** 70 in.
  - H** 65 in.
  - J** 60 in.
- 39 Yolanda has 10 red tomatoes and 2 green tomatoes in a bag. All the tomatoes are the same size. If Yolanda takes 1 tomato from the bag without looking, which *best* describes the chance it will be a green tomato?
- A** Certain
  - B** Likely, but not certain
  - C** Unlikely, but not impossible
  - D** Impossible

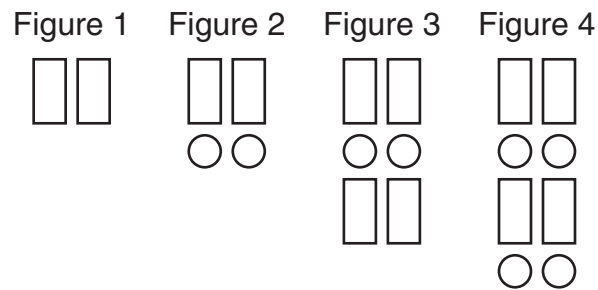
- 40 The bar graph shows the number of each color pencil the school store sold last week.



Based on the data in the graph, which of the following is *closest* to the total number of pencils sold last week?

- F** 350
- G** 400
- H** 450
- J** 500

- 41 Ron used circles and rectangles to make a pattern. For Figure 1, he used two rectangles. For Figure 2, he added two circles. He continued the pattern by adding two rectangles, then two circles.



What will be the total number of circles in Figure 6?

- A 2
- B 4
- C 6
- D 8

- 42 Adrian is using a subtraction rule to make the number pattern shown below.

281 278 275 272 269

If the pattern continues in the same way, what will be the 7th number in the pattern?

- F 270
- G 266
- H 263
- J 260

**43 Which is true?**

- A**  $12 \times 89 = 89 \times 12$
- B**  $12 \times 89 = 89 \div 12$
- C**  $12 \times 89 = 10 + 2 + 89$
- D**  $12 \times 89 = (12 \times 8) + (12 \times 9)$

**44 Alana used a rule to get each new number in the pattern shown.**

**5, 10, 20, 40, 80**

**Which could be the rule Alana used?**

- F** Multiply by 2
- G** Add 10
- H** Add 5
- J** Multiply by 5

- 45 Dan is buying packages of cookies for class. Each package of cookies contains the same number of cookies.

Packages of Cookies

Number of Packages	Total Number of Cookies
1	4
2	8
3	12
4	16
5	20

Based on the information from the table, how many packages will Dan need to buy to have a total of 32 cookies?

- A 6
- B 7
- C 8
- D 9

- 46 Which of the following goes in the blank to make the statement true?

$$12 + (8 + 25) = \underline{\hspace{2cm}}$$

- F  $(12 + 8) + 25$
- G  $12 \times 33$
- H  $33 + (12 + 8)$
- J  $20 + 37$



**47 Which goes in the blank to make the statement true?**

$$3 + 5 = \underline{\hspace{2cm}}$$

- A**  $5 \div 3$
- B**  $5 - 3$
- C**  $5 \times 3$
- D**  $5 + 3$

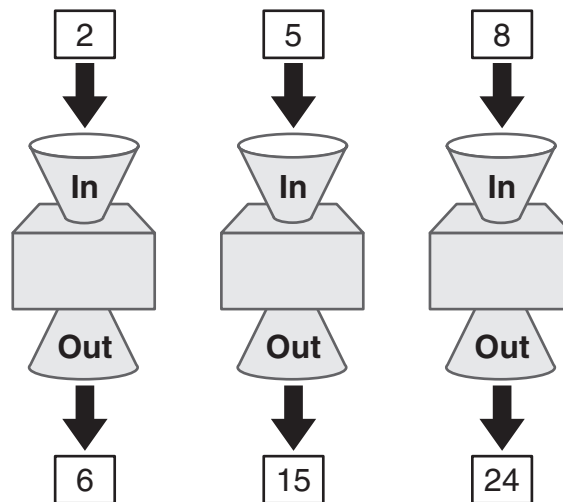
**48 Which will be true if an equal sign (=) is placed in the empty box?**

- F**  $7 \times 6 \square 6 + 7$
- G**  $7 \times 6 \square 6 - 7$
- H**  $7 \times 6 \square 6 \times 7$
- J**  $7 \times 6 \square 6 \div 7$

**49  $10 + 12 =$  \_\_\_\_\_**

- A**  $12 - 10$
- B**  $12 \times 10$
- C**  $12 \div 10$
- D**  $12 + 10$

- 50** A number machine uses a rule to change numbers into different numbers. The following picture shows what happens when three different numbers go into and come out of the same number machine.



**What number should come out if the number 12 goes into this number machine?**

- F** 16
- G** 22
- H** 33
- J** 36