Skills Inventory Pretest

Part A: Computation

Circle the letter for the correct answer for each problem.

1. $\begin{array}{r} 16 \\ \times\ 8 \\ \hline \end{array}$

A 328
B 200
C 88
D 128
E None of these

2. $3\overline{)56}$

F 18
G 18 R2
H 19
J 19 R3
K None of these

3. $\$2.45 - \$1.96 =$

A $0.49
B $1.49
C $0.59
D $0.48
E None of these

4. $\begin{array}{r} 206 \\ \times\ 12 \\ \hline \end{array}$

F 620
G 2,492
H 2,472
J 2,462
K None of these

5. $\frac{3}{15} + \frac{7}{15} =$

A $\frac{2}{3}$ C $\frac{2}{5}$
B $\frac{1}{3}$ D $\frac{1}{10}$
E None of these

6. 25% of 160 =

F 64
G 25
H 40
J 400
K None of these

7. $-10 + 2 =$

A 8
B −8
C 12
D −12
E None of these

8. $-10 \times -5 =$

F 50
G −50
H 15
J 2
K None of these

9. $\frac{3}{8} \times \frac{4}{9} =$

A $\frac{7}{17}$ C $\frac{3}{8}$
B $\frac{1}{6}$ D $\frac{4}{7}$
E None of these

10. 6.37 + 0.043 =

F 6.8
G 0.6413
H 6.3743
J 6.413
K None of these

11. $\begin{array}{r} 3\frac{1}{5} \\ -1\frac{1}{10} \\ \hline \end{array}$

A $2\frac{1}{10}$ C $2\frac{1}{5}$
B $2\frac{1}{15}$ D $2\frac{9}{10}$
E None of these

12. $0.2503 \times 0.5 =$

F 1.2515
G 0.012515
H 0.12515
J 12.51
K None of these

13. $13\overline{)273}$

A 20 R3
B 19 R25
C 21
D 19
E None of these

14. $6\overline{)3.42}$

F 0.057
G 0.57
H 57
J 0.507
K None of these

15. 40% of $\square = 4$

A 1
B 10
C 100
D 1,000
E None of these

16. What percent of 80 is 20?

F 40%
G 4%
H 25%
J 20%
K None of these

17. $\frac{1}{15} \div \frac{3}{5} =$

A $\frac{3}{5}$
B $\frac{3}{25}$
C $\frac{1}{9}$
D 1
E None of these

18. $-20 \times 8 =$

A 160
B −12
C −160
D 12
E None of these

19. $\frac{5}{6} + \frac{7}{12} =$

F $\frac{2}{3}$
G $1\frac{5}{12}$
H $1\frac{5}{6}$
J $2\frac{1}{6}$
K None of these

20. $9 - (-13) =$

A 22
B −4
C 4
D −22
E None of these

21. $12 - 3\frac{5}{7} =$

F $9\frac{5}{7}$
G $9\frac{2}{7}$
H $8\frac{2}{7}$
J $7\frac{2}{7}$
K None of these

22. $-50 \div -50 =$

A 1
B 2,500
C −1
D −2,500
E None of these

23. $8 + -4 + 5 =$

F 17
G −4
H 11
J −17
K None of these

24. $2.4 \times 3 =$

A 72
B 0.72
C 7.2
D 720
E None of these

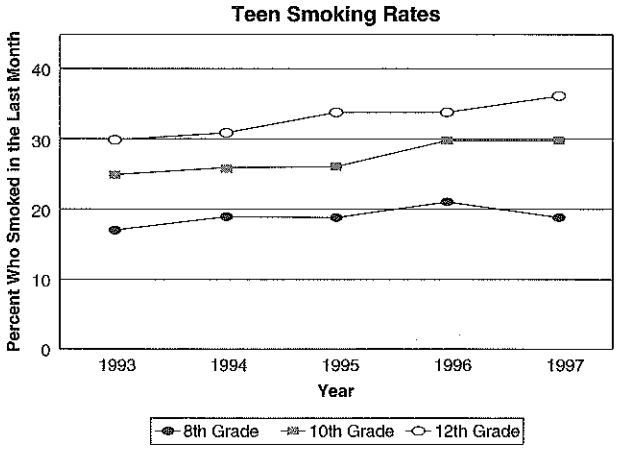
25.
$$\begin{array}{r} 45 \\ \times\ 63 \\ \hline \end{array}$$

F 2,535
G 2,035
H 2,735
J 2,835
K None of these

Part B: Applied Mathematics

Circle the letter for the correct answer to each question.

Byron created the graph below based on information he found about teens who said they had smoked during the past 30 days. Use the graph to answer Questions 1–4.



1. By about how much did the 12th-grade smoking rate rise between 1993 and 1997?

   A 12 percent
   B 5 percent
   C 18 percent
   D 30 percent

2. Which of the following best describes how the 8th-grade smoking rate changed during the period shown?

   F It rose steadily, without pause.
   G It never changed.
   H It rose slightly, but it has started to decline.
   J It has dropped drastically.

3. In what period was there the greatest increase in the percentage of 10th graders who smoked?

   A 1993 to 1994
   B 1994 to 1995
   C 1995 to 1996
   D 1996 to 1997

4. Which of the following statements is supported by the information on this graph?

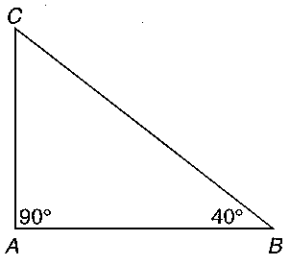
   F As teenagers get older, they are more likely to smoke.
   G The older you are, the harder it is to stop smoking.
   H The older teenage smokers get, the more cigarettes they smoke per day.
   J The older teenagers get, the less likely they are to start smoking.

5. What is the value of n in the inequality in the box?

   $n + 4 < 12$

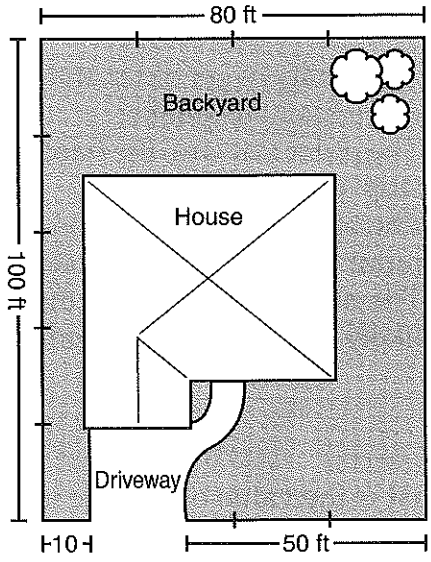
   A $n < 8$
   B $n > 16$
   C $n < 16$
   D $n > 8$

6. What is the measure of $\angle ACB$ in this triangle?



   F 45°
   G 40°
   H 50°
   J This cannot be determined.

The diagram below shows the layout of the Carsons' property. Use it to answer Questions 7–10.



7. What is the perimeter of the Carsons' property?

   A 200 ft
   B 280 ft
   C 340 ft
   D 360 ft

8. Mr. Carson built a fence along the back edge of his property. It took him 5 hours to complete the fence. At that rate, how long should it take him to put up a fence along the left side of his lot?

   F 10 hours

   G $9\frac{1}{2}$ hours

   H 6 hours 15 minutes

   J 4 hours 20 minutes

9. Mr. Carson wants to string lights along the back fence. The lights are sold by the yard. How many yards of lights will he need to cover that length?

   A $10\frac{7}{8}$
   B $20\frac{1}{4}$
   C $30\frac{1}{2}$
   D $26\frac{2}{3}$

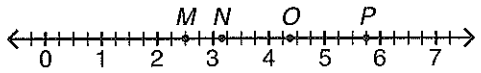
10. What is the area of the Carsons' lot?

    F 8,000 sq ft
    G 800 sq ft
    H 800,000 sq ft
    J 80,000 sq ft

11. Kayla's son is taking a train to Yorkville to visit his grandparents. His train is scheduled to leave the station at 3:45. If the train ride is 2 hours 20 minutes, what time should he arrive in Yorkville?

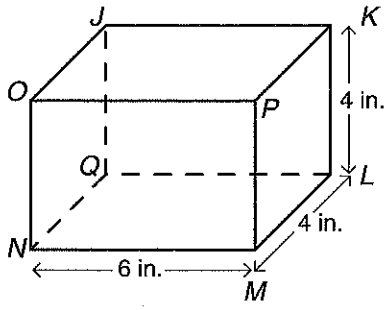
    A 5:05
    B 5:25
    C 6:05
    D 6:35

12. Which point on the number line indicates a number that is less than 5.3 and greater than 3.5?



    F point *M*
    G point *N*
    H point *O*
    J point *P*

Use the figure shown below to answer Questions 13–15. Each vertex on the figure has been labeled, and the length of each side is shown.



13. How many faces does the figure have?

A 4 C 8
B 6 D 10

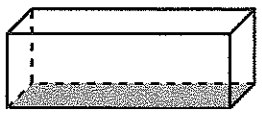
14. Which line segments of the figure are perpendicular?

F $\overline{JK}$ and $\overline{MN}$ H $\overline{JO}$ and $\overline{KP}$
G $\overline{JQ}$ and $\overline{KL}$ J $\overline{JK}$ and $\overline{JO}$

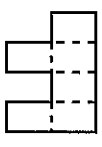
15. What is the total surface area of the figure?

A 112 sq in. C 128 sq in.
B 124 sq in. D 284 sq in.

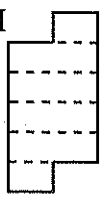
16. Which of these patterns could be folded to make the figure below?



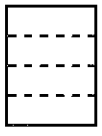
F



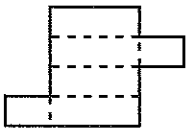
H



G



J



Use this chart for Numbers 17–20.

Fried Rice Mix Nutrition Facts

Serving Size:	$\frac{1}{3}$ cup (44 grams)	
Servings per Container	5	
Amount Per Serving		
Calories	150	
Calories from Fat	10	
	% Daily Allowance	
Total Fat	1 g	2%
Saturated Fat	0 g	0%
Cholesterol	0 mg	0%
Sodium	600 mg	25%
Potassium	420 mg	12%
Total Carbohydrates	32 g	11%
Dietary Fiber	2 g	9%
Sugars	6 g	
Other Carbohydrates	24 g	
Protein	5 g	

17. This chart shows that 600 mg (milligrams) of sodium is 25% of the sodium you should eat each day. What is the recommended daily allowance of sodium?

A 1,200 mg C 2,400 mg
B 150 mg D 15,000 mg

18. How many cups of fried rice mix are in this container?

F 5 H $\frac{3}{5}$
G $1\frac{2}{3}$ J 3

19. About how many ounces of fried rice mix are in one serving? (1 ounce = 28 grams)

A 1.5 C 15
B 4 D 1,200

20. Which number sentence shows how many calories are in 1 cup of this mix?

F $150 \div 3 = \square$
G $150 \times 3 = \square$
H $3 \div 150 = \square$
J $150 = \square$

An end table is on sale for $123. To buy it, you must put down 15%. Use this information to do Numbers 21–23.

21. The table has been marked down 20%. Which of these is the best estimate of how much the table originally cost?

A $100
B $150
C $175
D $200

22. Which of these number sentences could you use to figure out how much is left to pay after you make the down payment?

F $\$123 \times 0.15 =$ _____

G $\frac{\$123}{6} =$ _____

H $\$123 - (\$123 \times 0.15) =$ _____

J $\$123 - 0.15 =$ _____

23. Mark and Cindy have $600 to buy furniture. If they buy an end table and a chair for $345.59, about how much will they have left? *(Round all numbers to the nearest 10 dollars.)*

A $250
B $130
C $ 70
D $160

24. Which of these has the same value when it is rounded to the nearest tenth and to the nearest hundredth?

F 1.452
G 1.512
H 1.501
J 1.507

25. Gary puts 2 blue marbles and 3 green marbles in a bag. What are the chances that if he takes a marble from the bag without looking, it will be blue?

A $\frac{2}{3}$

B $\frac{2}{5}$

C $\frac{1}{2}$

D $\frac{1}{5}$

Pretest Answer Key and Evaluation Chart

Use these answer keys to check your pretest. The evaluation charts match each problem in the pretest to a skill area. The charts will refer you to pages in this book that can provide information and practice to help you with problems you missed.

Answer Key—Part A: Computation

1.	D	14.	G
2.	G	15.	B
3.	A	16.	H
4.	H	17.	C
5.	A	18.	C
6.	H	19.	G
7.	B	20.	A
8.	F	21.	H
9.	B	22.	A
10.	J	23.	K
11.	A	24.	C
12.	H	25.	J
13.	C		

Evaluation Chart—Part A: Computation

Problem Number	Skill Area	Text Pages
1, 4, 25	Multiplication of Whole Numbers	18–22 and 30–31
2, 13	Division of Whole Numbers	23–29 and 30–31
3, 10, 12, 14, 24	Decimals	40–52
5, 9, 11, 17, 19, 21	Fractions	53–72
7, 8, 18, 20, 22, 23	Integers	73–80
6, 15, 16	Percents	88–98

Answer Key—Part B: Applied Mathematics

1.	B	14.	J
2.	H	15.	C
3.	C	16.	J
4.	F	17.	C
5.	A	18.	G
6.	H	19.	A
7.	D	20.	G
8.	H	21.	B
9.	D	22.	H
10.	F	23.	A
11.	C	24.	H
12.	H	25.	B
13.	B		

Evaluation Chart—Part B: Applied Mathematics

Problem Number	Skill Area	Text Pages
12, 22	Number and Number Operations	30–31, 40–49, 53–69, 73–78
17, 18, 19	Computation in Context	50, 70, 87, 94–96
23, 24	Estimation	17, 22, 27, 37, 42
6, 7, 9, 11	Measurement	129–150
10, 13, 14, 15, 16	Geometry and Spatial Sense	113–128
1, 2, 3, 4	Data Analysis	155–157, 159–163, 164–165
25	Statistics and Probability	151–153, 158, 164–165
5, 20	Patterns, Functions, Algebra	99–112
8, 21	Problem Solving and Reasoning	32–39