

# **MATH COMPUTATION**

## **Part 1**

**TIME : 15 Minutes**

**This is a practice test - the results are not  
valid for certificate requirements.**

**A calculator may not be used for this test.**

## MATH COMPUTATION

1.

$$182 \div 7 =$$

A. 20 R2  
 B. 26  
 C. 20 R 4  
 D. 206  
 E. None of these

6.

$$600 \times 245 =$$

A. 144,300  
 B. 147,000  
 C. 14,700  
 D. 174,000  
 E. None of these

2.

$$\begin{array}{r} 1.20 \\ +0.85 \\ \hline \end{array}$$

A. 1.05  
 B. 1.65  
 C. 2.05  
 D. 2.15  
 E. None of these

7.

$$40 \times 24 =$$

A. 80,160  
 B. 960  
 C. 96  
 D. 8160  
 E. None of these

3.

$$270 \times 200 =$$

A. 540  
 B. 54,000  
 C. 44,000  
 D. 440  
 E. None of these

8.

$$12 \overline{)384}$$

A. 3 R 24  
 B. 31  
 C. 31 R 10  
 D. 32  
 E. None of these

4.

$$672 \div 6 =$$

A. 110  
 B. 111 R 4  
 C. 113  
 D. 112 R 2  
 E. None of these

9.

$$4500 \div 3 =$$

A. 1500 R 1  
 B. 150  
 C. 15  
 D. 1500  
 E. None of these

5.

$$\begin{array}{r} 212 \\ \times 8 \\ \hline \end{array}$$

A. 1686  
 B. 1090  
 C. 1786  
 D. 16,916  
 E. None of these

10.

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

A.  $\frac{2}{9}$   
 B.  $1\frac{2}{9}$   
 C. 1  
 D.  $1\frac{2}{3}$   
 E. None of these

11.

- $2.88 \div 16 =$
- A. 1.08
  - B. 1.88
  - C. 10.8
  - D. 0.18
  - E. None of these

12.

- $54 - 0.024 =$
- A. 30
  - B. 0.03
  - C. 53.976
  - D. 53.076
  - E. None of these

13.

- $$\begin{array}{r} \$3.23 \\ -\$2.80 \\ \hline \end{array}$$
- A. \$0.34
  - B. \$1.43
  - C. \$4.30
  - D. \$0.43
  - E. None of these

14.

- $$\begin{array}{r} \frac{3}{8} \\ -\frac{2}{8} \\ \hline \end{array}$$
- A.  $\frac{1}{4}$
  - B.  $\frac{1}{8}$
  - C.  $\frac{3}{8}$
  - D.  $\frac{1}{32}$
  - E. None of these

15.

- $\frac{2}{9} \div 2 =$
- A. 18
  - B.  $\frac{4}{9}$
  - C.  $2\frac{1}{4}$
  - D.  $4\frac{1}{2}$
  - E. None of these

16.

- 20% of 40 =
- A. 80
  - B. 20
  - C. 2
  - D. 8
  - E. None of these

17.

- $34.2 \times 4 =$
- A. 12.68
  - B. 126.8
  - C. 13.68
  - D. 136.8
  - E. None of these

18.

- $3 -^{-}1 =$
- A. 4
  - B. 2
  - C. 3
  - D.  $^{-}4$
  - E. None of these

19.

- 62% of \_\_\_ = 62
- A. 62
  - B. 100
  - C. 150
  - D. 10
  - E. None of these

20.

- $^{-}54 \div ^{-}2 =$
- A. 26
  - B. 27
  - C.  $^{-}26$
  - D.  $^{-}27$
  - E. None of these

21.

- What percent of 100 is 33?
- A. 33
  - B. 30
  - C. 30.3
  - D. 0.33
  - E. None of these

22.

$$12 +^{-}1 +^{-}1 =$$

A. -10  
B. -14  
C. 10  
D. 14  
E. None of these

23.

$$\frac{1}{2} \div \frac{4}{5} =$$

A.  $2\frac{1}{2}$   
B.  $\frac{2}{5}$   
C.  $\frac{5}{8}$   
D.  $1\frac{3}{5}$   
E. None of these

24.

$$15\% \text{ of } \underline{\quad} = 30$$

A. 50  
B. 200  
C. 75  
D. 150  
E. None of these

25.

$$-2 -^{-}5 =$$

A. -3  
B. 3  
C. 7  
D. -7  
E. None of these



# **MATH APPLICATION**

## **Part 2**

**TIME : 50 Minutes**

**This is a practice test - the results are not  
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## MATH APPLICATION

1. Which of these numbers is three hundred forty thousand, seven hundred five?
- A. 340,705
  - B. 3.040.705
  - C. 34,750
  - D. 340,750

2. What number goes in the box to make the number sentence true?

$$4 \times \underline{\quad} \times 5 = 100$$

- A. 2
- B. 5
- C. 6
- D. 8

3. What decimal goes in the box on the number line?



- A. 0.38
- B. 0.39
- C. 0.40
- D. 0.41

4. About 2 out of every 3 people Son Lee speaks to agrees to sign the petition. If she speaks to 150 people, about how many signatures will she get?

- A. 50
- B. 75
- C. 100
- D. 120

5. This table shows “Input” numbers that have been changed to “Output” numbers by applying a specific rule. What number is missing from the table?

Rule: Multiply by 2, then subtract 1.

Input	Output
3	5
12	23
15	29
8	?

- A. 10
- B. 15
- C. 16
- D. 17

6. Which of these is another way to write  $70,000,000 + 14,000,000 + 30$ ?

- F. 71,400,003
- B. 84,000,030
- C. 74,000,300
- D. 84000.300

7. There are 26 tiles in a box and Mike needs 96 tiles. What does  $n$  represent in the number sentence below?

$$4 \times 26 = n$$

- A. the number of boxes Mike needs
- B. the number of tiles in  $\frac{1}{4}$  box
- C. the number of tiles in 4 boxes
- D. the cost of 26 tiles

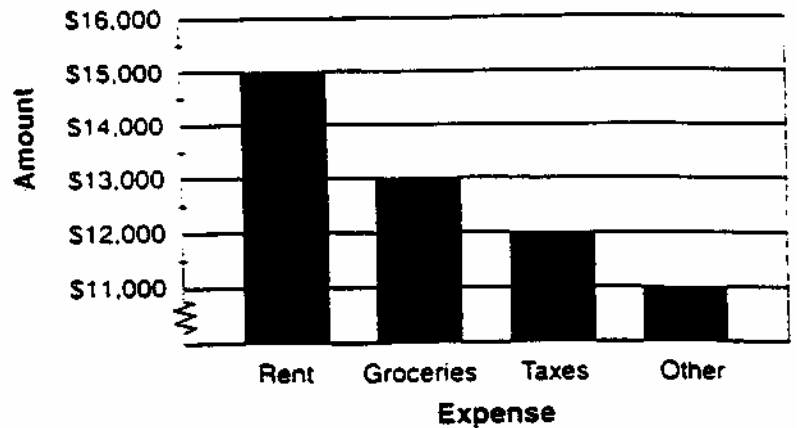
8. Which of the following lists the fractions from greatest to least?

- A.  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}$
- B.  $\frac{1}{5}, \frac{1}{4}, \frac{1}{3}, \frac{1}{2}$
- C.  $\frac{1}{4}, \frac{1}{3}, \frac{1}{2}, \frac{1}{5}$
- D.  $\frac{1}{3}, \frac{1}{2}, \frac{1}{5}, \frac{1}{4}$

9. During an average game,  $\frac{1}{3}$  of the snack bar sales are soft drinks,  $\frac{1}{4}$  are potato chips,  $\frac{1}{6}$  are hot dogs, and  $\frac{1}{12}$  are candy bars. Which sells the most at the snack bar?

- A. soft drinks
- B. potato chips
- C. hot dogs
- D. candy bars

This graph show how the Yang family spends money. Study the graph.



10. Which of these is the greatest expense for the Yang family?

- A. Rent
- B. Taxes
- C. Groceries
- D. Restaurants

11. Which of these statements is true?

- A. The family spends more on taxes than it does on clothing.
- B. The family spends less on taxes than it does on vacations.
- C. The family spends twice as much on rent as it does on taxes.
- D. The family spends as much on rent as it does on taxes and groceries combined.

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\$99



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NOW \$2499



Complete Stereo System  
\$699



CD Player  
\$275



35" Television  
\$1350

Financing Available (10% down, 15% annual interest)

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12. The price of the stereo system is 25% off the regular price. Which of these is the best estimate of the regular price of the stereo system?

A. \$450  
B. \$925  
C. \$600

13. About how much has the camera been marked down?

A. 700%  
B. 200%  
C. 70%  
D. 50%

14. To get financing at this store, you must pay 15% interest. Which fraction is equal to 15 percent?

A.  $\frac{15}{10}$   
B.  $\frac{15}{2400}$   
C.  $\frac{10}{15}$   
D.  $\frac{15}{100}$

15. Sales tax in this area is 7%. About what is the cost of the microwave including sales tax?

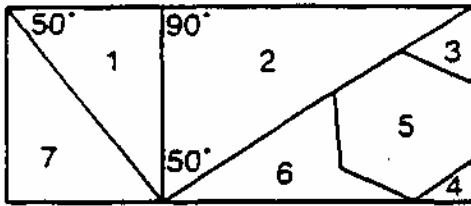
A. \$92.00  
B. \$99.70  
C. \$106.00  
D. \$169.00

16. If you use the store's financing to buy the computer, what is the smallest down payment you can make?

A. \$10.00  
B. \$24.99  
C. \$200.00  
D. \$249.90



The diagram below shows plans for a stained-glass window. Study the diagram.



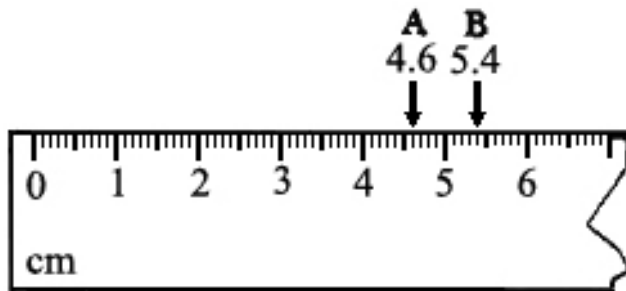
17. Which pieces of this window are congruent?

- A. pieces 1 and 2
- B. pieces 2 and 3
- C. pieces 4 and 6
- D. pieces 7 and 1

18. What kind of shape is piece 5?

- A. hexagon
- B. pentagon
- C. octagon
- D. quadrilateral

Use the 6-centimeter ruler pictured below to answer Numbers 21 and 22



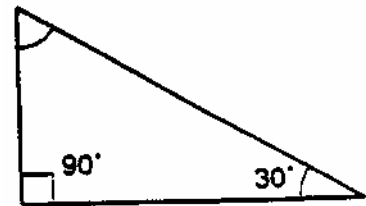
21. How many millimeters is point A from the point marked 0?

- A. 0.6
- B. 4.6
- C. 6
- D. 46

19. Randy and Dennis drove for 5 hours at a speed of 62 miles per hour. How many miles did they travel?

- A. 246
- B. 310
- C. 430
- D. 640

20. In the triangle below, the measures of two angles are given. What is the measure of the third angle?



- A.  $30^\circ$
- B.  $45^\circ$
- C.  $60^\circ$
- D.  $90^\circ$

22. How many millimeters is point A from the point marked 0?

(1 meter = 100 centimeters)

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

# RUB-A-DUB LAUNDRY

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## RATES

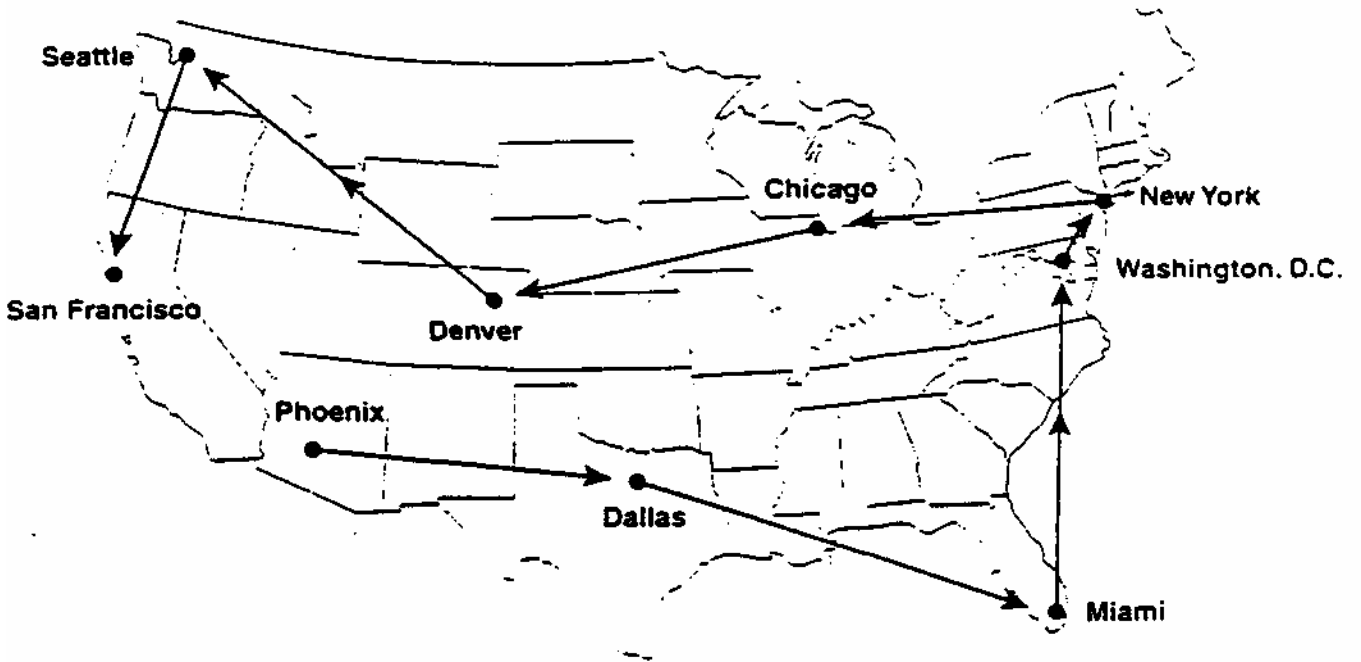
<u>Garments</u>	<u>Wash and Dry</u>	<u>Iron</u>	<u>Dry Clean</u>
1-9	\$0.10 each	Add \$0.50 each	\$2.00 each
10-24	\$0.10 each	Add \$0.40 each	\$1.75 each
25-49	\$0.10 each	Add \$0.30 each	\$1.50 each
50-99	\$0.05 each	Add \$0.20 each	\$1.25 each
100 or more	\$0.05 each	Add \$0.10 each	\$1.00 each

\$1.00 per repair for mending.

\$2.00 charge for all lost claim tickets.

Garments will not be held for more than 1 month.

23. David brought in twelve shirts to be washed and dried. How much will he be charged?
- A. 10¢  
B. \$1.20  
C. \$11.20  
D. \$12.00
24. If David has his twelve shirts ironed as well as washed and dried, how much more will he pay?
- A. \$4.00  
B. \$4.80  
C. \$5.80  
D. \$6.00
25. Elona had three dresses dry-cleaned and ten shirts washed, dried, and ironed. How much will she be charged before tax?
- A. \$6.00  
B. \$9.00  
C. \$11.00  
D. \$12.60
26. Frank has five pairs of pants to be dry-cleaned. His daughter has seven dresses to be dry-cleaned. How much will they save if they bring everything in together?
- A. \$3.00  
B. \$6.00  
C. \$21.00  
D. \$24.00
27. Raul's cleaning bill came to \$18.46. He paid with a \$20.00 bill. How much change should he receive?
- A. \$1.44  
B. \$1.54  
C. \$2.44  
D. \$2.54

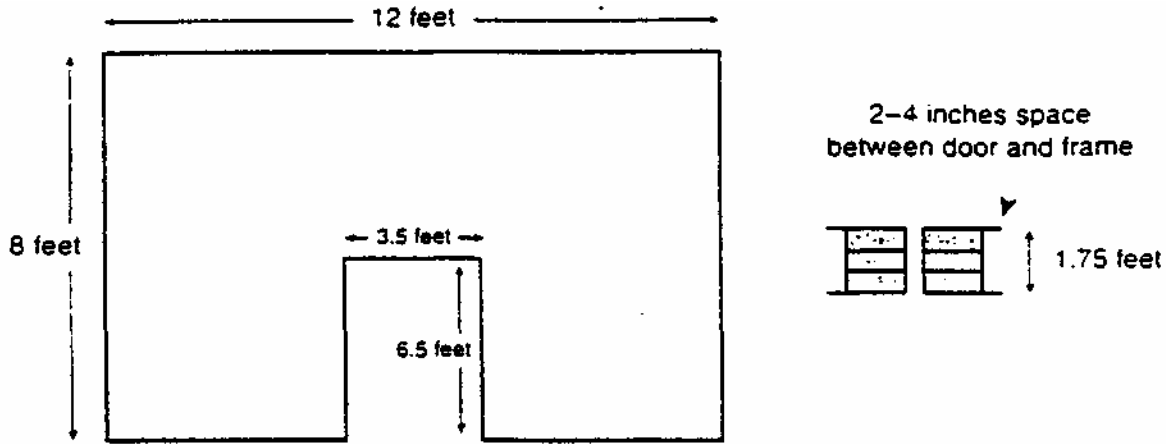


### MILEAGE CHART

Phoenix to Dallas	850 miles
Dallas to Miami	1050 miles
Miami to Washington D.C.	975 miles
Washington. D.C. to New York City	200 miles
New York City to Chicago	750 miles
Chicago to Denver	800 miles
Denver to Seattle	1050 miles
Seattle to San Francisco	700 miles

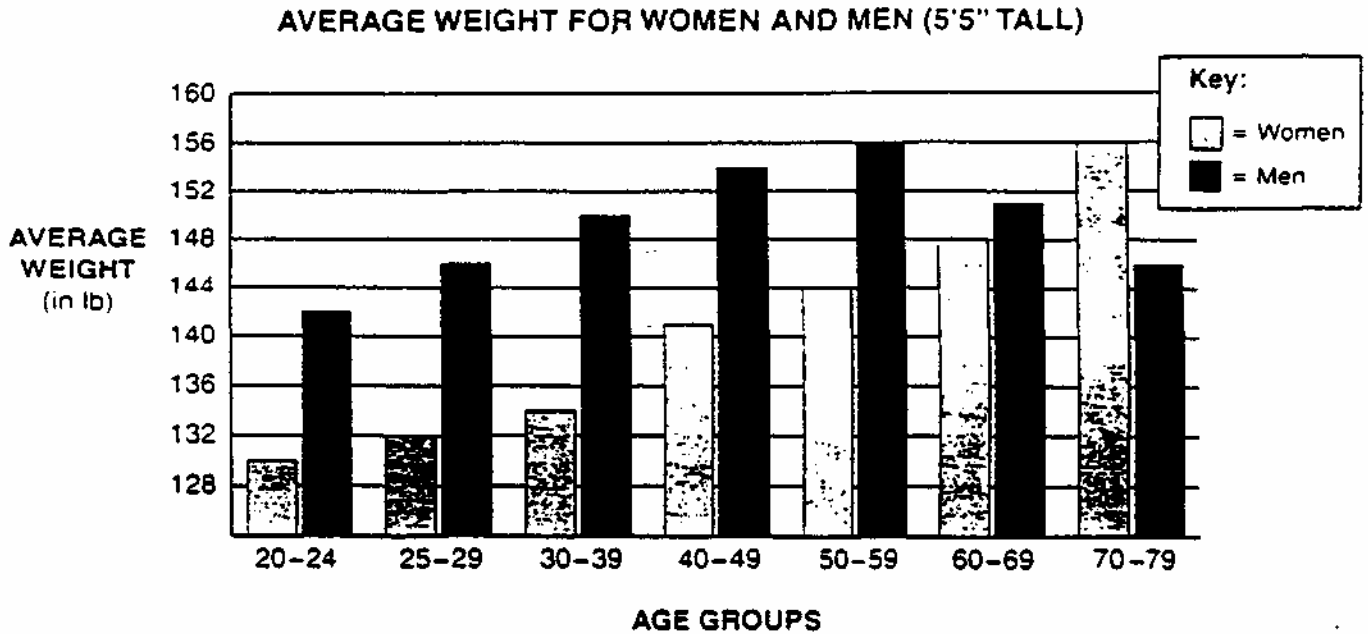
28. Where does Jordan plan to start his trip?
- A. Phoenix
  - B. San Francisco
  - C. New York
  - D. Miami
29. How much farther is it from Denver to Seattle than from Chicago to Denver?
- A. 200 miles
  - B. 250 miles
  - C. 300 miles
  - D. 350 miles
30. What would be the shortest part of Jordan's trip?
- A. Washington D.C. to New York City
  - B. Seattle to San Francisco
  - C. Miami to Washington D.C.
  - D. Chicago to Denver
31. Jordan wishes to spend three days in each of the nine cities listed. What else must he know about his trip to figure out how fast he must travel from city to city?
- A. the cost per gallon of gas
  - B. the cost of airline tickets
  - C. the temperature in each city
  - D. how many days altogether he has for the trip
32. This map would be most useful to show Jordan
- A. what there is to do in each city.
  - B. how much the trip would cost.
  - C. the best driving routes between cities.
  - D. the order in which he will visit the cities.
33. Which of these is the best estimate of the average distance between cities on this trip?
- A. 700 miles
  - B. 800 miles
  - C. 900 miles
  - D. 1000 miles

The diagram below shows the doorway in Lydia's breakfast nook, and the swinging doors she is planning to install in the doorway. Study the diagram.



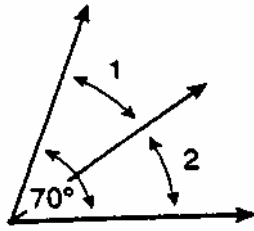
34. About how wide should each of the swinging doors be? (Do not include the width of the hinges.)
- about 1 foot
  - at least 3 feet
  - less than  $1 \frac{3}{4}$  feet
  - about 2 feet 4 inches
35. The cost of the doors is \$49.50 each, and installation of both doors is another \$37.50. How much should Lydia have in her checking account, to the nearest ten dollars, to pay the bill in full?
- \$90
  - \$140
  - \$150
  - \$200
36. Lydia's kitchen has about 410 square feet of wall area. One roll of wallpaper covers about 23 square feet. How many rolls of wallpaper will Lydia need to paper the walls of the kitchen?
- 10
  - 18
  - 20
  - 23
37. In remodeling her breakfast nook. Lydia spends \$289.00 for a new table, \$154.00 for the doors, \$125.50 for wallpaper, and \$215.00 for curtains. Which is the best estimate of how-much she spent in all?
- \$550.00
  - \$600.00
  - \$900.00
  - \$775.00

This graph shows the average weights of men and women at different times in their lives. Study the graph.



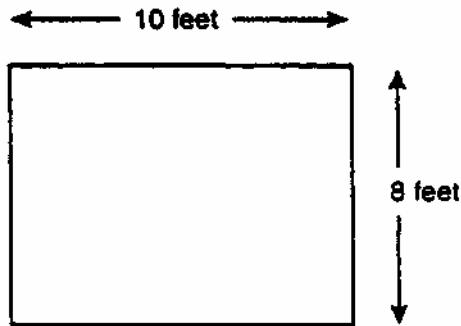
38. For men in this graph, what is the range of average weight?
- A. from 130 to 156 lb
  - B. from 142 to 156 lb
  - C. from 142 to 146 lb
  - D. from 156 to 146 lb
39. The average weight of a 5' 5"-tall woman in her forties is about
- A. 135 lb
  - B. 141 lb
  - C. 145 lb
  - D. 147 lb
40. Among 5'5" men, the average weight of those aged 25 to 29 years matches that of men aged
- A. 30-39 years
  - B. 50-59 years
  - C. 60-69 years
  - D. 70-79 years

41. The ray shown divides the large angle in half. What is the measure of angle 2?



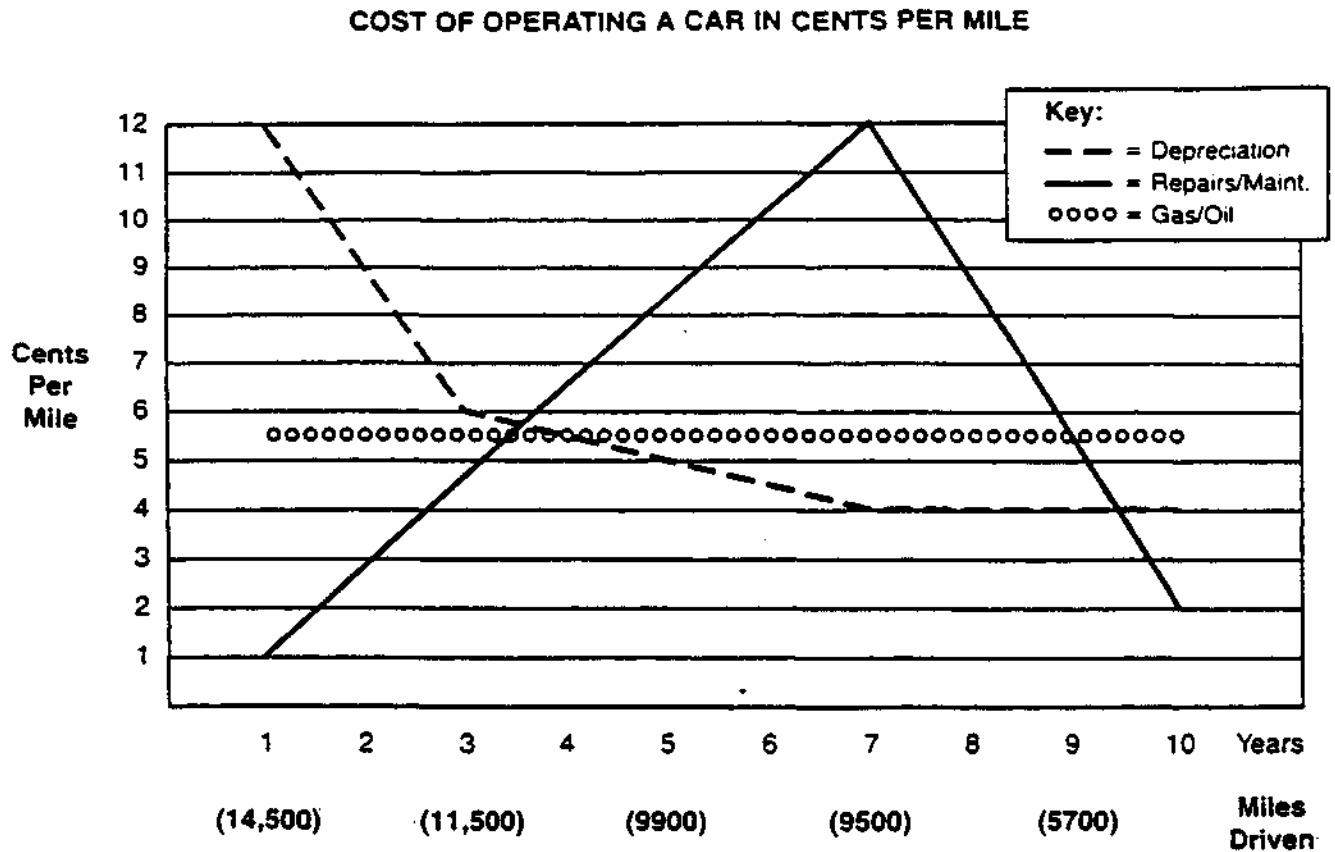
- A.  $30^\circ$       B.  $35^\circ$       C.  $40^\circ$       D.  $45^\circ$

This diagram shows the dimensions of Eric's garden. Use the diagram to do Numbers 2 through 5.



42. What is the area of the garden?
- A. 18 feet  
B. 36 feet  
C. 40 square feet  
D. 80 square feet
43. Eric wants to put a fence around the garden. How much fencing will he need?
- A. 18 feet  
B. 36 feet  
C. 40 feet  
D. 80 feet
44. The fencing costs Eric \$60.40. Which of these is \$60.40?
- A. 3 twenty-dollar bills, 3 dimes, and 1 nickel  
B. 3 twenty-dollar bills, 1 quarter, and one nickel  
C. 3 twenty-dollar bills, 1 quarter, and 1 dime  
D. 3 twenty-dollar bills, 1 quarter, 1 dime, and 1 nickel
45. Eric buys 40 ounces of fertilizer for the garden. How many pounds is that?
- A.  $1\frac{1}{2}$   
B. 2  
C.  $2\frac{1}{2}$   
D. 3

This graph shows how much it costs to operate an average car. Each line represents a separate expense. Study the graph.



Source: U.S. Federal Highway Administration

46. In which year is there the greatest difference between the costs of depreciation and repairs?
- A. the first year  
 B. the fourth year  
 C. the seventh year  
 D. the tenth year
47. In which years is the expense of repairs and maintenance more than that of gas and oil?
- A. year 1 through year 4  
 B. year 4 through year 10  
 C. year 4 through year 9  
 D. year 9 through year 10
48. In most years the cost of gas and oil is the median among the three costs graphed. In which of the following years is it not the median?
- A. year 1  
 B. year 5  
 C. year 8  
 D. year 10
49. In which year does depreciation account for the smallest share of the cost of operating a car?
- A. year 1  
 B. year 3  
 C. year 7  
 D. year 10

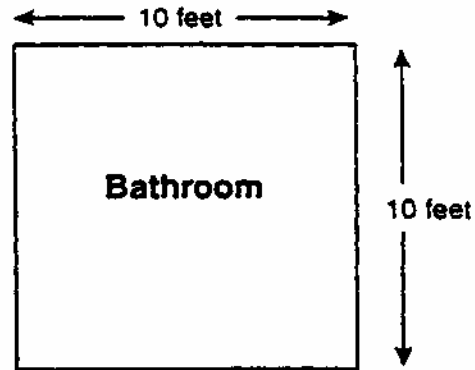


Amanda is putting a border on her bathroom walls. A section of the border is shown below, along with a diagram of Amanda's bathroom. Study the border and the diagram.

**Border:**



**Size of room:**



50. Amanda wants to put the border halfway up her walls, which are 9 feet high. To figure out where to put the border, she uses the equation  $9 \div 2 = x$ . What does the  $x$  in the equation represent?
- A. how far up from the floor the top of the border should be placed
  - B. how much space there will be between the border and the floor
  - C. where the halfway point is between the ceiling and the floor
  - D. how wide the border is



# ANSWER KEY

## Part 1 – Math Computation

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

## Part 2 – Math Application

1. A
2. B
3. B
4. C
5. B
6. B
7. C
8. A
9. A
10. A
11. A
12. B
13. D
14. D
15. C
16. D
17. D
18. A
19. B
20. C
21. D
22. A
23. B
24. B
25. C
26. A
27. B
28. A
29. B
30. A
31. D
32. D
33. B
34. C
35. B
36. B
37. D
38. B
39. B
40. D
41. B
42. D
43. B
44. D
45. C
46. A
47. C
48. D
49. C
50. C