Laborers'
International
Union of
North America

LiUNA! LOCAL 837

Feel the Power

Name:_____   Date:_____

School: _____

School Board: _____

Aptitude Test

Circle the correct answer for the following questions below. Refer to the formulas provided.

1. How many 2x4 studs would you need to frame a wall that is 8 feet high and 12 feet long, with studs spaced 16 inches apart? (1pt)

a. 3   b. 6   c. 9   d. 12

2. A rectangular lot measures 50 feet by 80 feet. What is the total area of the lot in square feet? (1pt)

a. 2,800 sq. ft.   b. 3,000 sq. ft.   c. 3,800 sq. ft.   d. 4,000 sq. ft.

3. A cylindrical tank has a diameter of 12 feet and a height of 10 feet. What is the volume of the tank in cubic feet? (Round to the nearest whole number.) (2pts)

a. 1131 cb. Ft.   b. 2113 cb. ft.   c. 1150 cb. ft.   d. 4524 cb. ft.

4. What is the slope of a roof that rises 8 feet over a horizontal distance of 16 feet? (Express your answer as a ratio.) (1pt)

a. 8:16   b. 2:4   c. 1:3   d. 1:2

5. A construction crew needs to pour a concrete slab that measures 20 feet by 30 feet by 6 inches. How many cubic yards of concrete will they need? (Round to the nearest whole number.) (2 pts)

a. 45 cb. Yd.   b. 11 cb. Yd.   c. 518,400 cb. yd   d. 1 cb. yd.

6. If a worker can install 12 tiles in 1 hour, how many tiles can they install in 6 hours? (1pt)

a. 50   b. 60   c. 72   d. 74

7. A sheet of drywall measures 4 feet by 8 feet. How many sheets of drywall will be needed to cover a wall that is 12 feet by 10 feet? (1 pt)

a. 4   b. 3   c. 5   d. 6

8. If a worker earns $20 per hour for the first 40 hours of work in a week, and $30 per hour for any additional hours, how much will they earn for a week in which they work 50 hours? (2pts)

a. $1500   b. $2000   c. $3100   d. $1100

9. Which tool would you use to measure the length of a board: a tape measure or a level? (1 pt)

a. Tape Measure   b. Level

10. A paint can covers 400 square feet per gallon. How many gallons of paint will be needed to paint a room that is 15 feet by 20 feet with 8-foot ceilings? (2pts)

a. 2.2 Gallons   b. 3.1 Gallons   c. 1.5 Gallons   d. 1.4 Gallons

11. A construction worker needs to install 24 light fixtures that are spaced 4 feet apart. How long is the line of fixtures? (1pt)

a. 86 feet   b. 96 feet   c. 100 feet   d. 102 feet

12. A carpenter needs to cut a board that is 10 feet long into 6 equal pieces. How long should each piece be? (1pt)

a. 1' – 3"   b. 1'-2"   c. 2'-0"   d. 1'-6"

13. A concrete block measures 8 inches by 8 inches by 16 inches. How many blocks will be needed to build a wall that is 10 feet high by 8 feet wide? (2pts)

a. 85   b. 90   c. 92   d. 96

14. A contractor needs to order 100 cubic yards of gravel. How many truckloads will be needed if each truck can carry 10 cubic yards of gravel? (1pt)

a. 20   b. 40   c. 10   d. 30

15. A concrete truck can discharge concrete at a rate of 10 cubic yards per hour. How long will it take to discharge 50 cubic yards of concrete? (1pt)

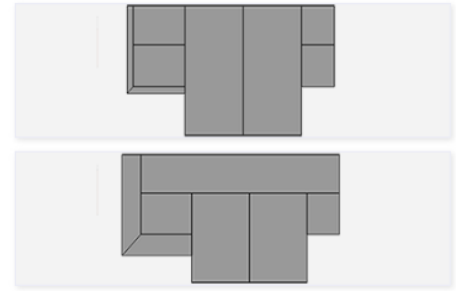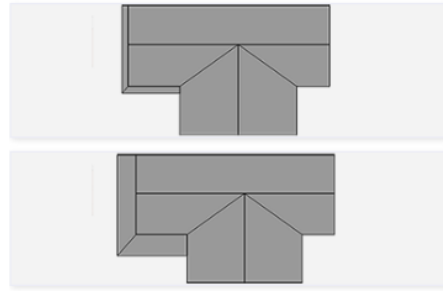a. 3 Hours   b. 2 Hours   c. 5 Hours   d. 6 Hours

16. Fill in the blanks that follow this pattern. 3, 7 ,2, 6, 14, 4, 9, 21, 6, ___, ___, ___,

(1pt)

a. 6, 28, 8,   b. 12, 24, 6,   c. 15, 26, 8,   d. 12, 28, 8,

17. Find the missing number 32, ___, 48, 56 (1pt)

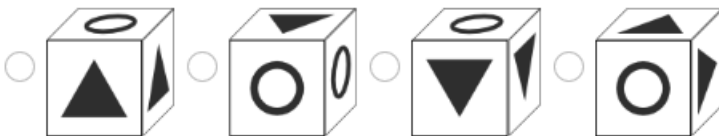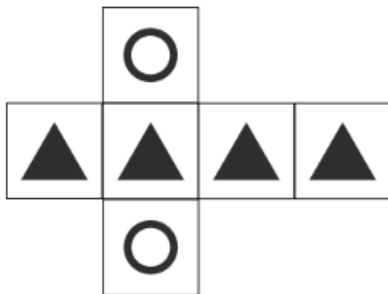a. 44   b. 34   c. 40   d. 36

18. Circle which plan depicts the rooftop of the house above? (2pts)

19. At a store, washers cost 45 cents per ounce. If $9.00 is spent, how many washers were purchased? (2pts)

a. 15   b. 20   c. 200   d. 2

20. Indicate which cube cannot be made based on the unfolded cube? (2pts)

Formulas and Conversions

1 foot = 0.3048 meters

1 inch = 2.54 centimeters

12 inches = 1 foot

3 feet = 1 yard

1 yard = 0.9144 meters

Volume of Cube = Length x Width x Height

Volume of Cylinder = π x radius ² x Height

Area = Length x Width