Unit 6 - Week 4

Assignment 4

Due on 2023-10-14, 11:59 PM

1. A 75 cm long rope is cut into 2 pieces. One piece is 19 cm longer than the other. How long is each piece?
   - A) 26 cm, 59 cm
   - B) 39 cm, 46 cm
   - C) 18 cm, 57 cm
   - D) 44 cm, 31 cm
   - E) 35 cm, 40 cm
   1 point

2. The width of a rectangle is 3/4 of its length. The area of the rectangle is 270 square meters. What is the length of the rectangle?
   - A) 60 m
   - B) 36 m
   - C) 90 m
   - D) 120 m
   - E) 72 m
   1 point

3. A bicycle wheel travels 1800 meters in 1200 seconds. How many meters does the bicycle travel in 1500 seconds?
   - A) 2250 m
   - B) 2700 m
   - C) 3000 m
   - D) 3300 m
   - E) 3800 m
   1 point

4. The sum of two numbers is 34. If one number is 17, what is the other number?
   - A) 17
   - B) 18
   - C) 27
   - D) 28
   - E) 34
   1 point

5. Evaluate the expression: 3a + 2b, if a = 2 and b = 5.
   - A) 16
   - B) 22
   - C) 26
   - D) 34
   - E) 40
   1 point

6. Find the value of the expression: 4/(x - 3).
   - A) 1/2
   - B) 1/3
   - C) 1/4
   - D) 1/5
   - E) 1/6
   1 point

7. A survey was conducted to find out the favorite ice cream flavor among children. 30% of the children preferred chocolate, 25% preferred vanilla, and 20% preferred strawberry. If 100 children participated in the survey, how many children preferred vanilla?
   - A) 25
   - B) 30
   - C) 40
   - D) 50
   - E) 60
   1 point

8. Solve the equation: 2x + 3 = 7.
   - A) x = 2
   - B) x = 3
   - C) x = 4
   - D) x = 5
   - E) x = 6
   1 point

9. A rectangle's length is 5 units more than its width. If the perimeter of the rectangle is 20 units, what are the dimensions of the rectangle?
   - A) 5 units, 10 units
   - B) 6 units, 11 units
   - C) 7 units, 12 units
   - D) 8 units, 13 units
   - E) 9 units, 14 units
   1 point

10. Find the value of the expression: (x + y) / (x - y), if x = 4 and y = 2.
    - A) 3
    - B) 4
    - C) 5
    - D) 6
    - E) 7
    1 point

11. Evaluate the expression: 2^3 - 1.
    - A) 7
    - B) 8
    - C) 9
    - D) 10
    - E) 11
    1 point

12. Solve the equation: 3x - 7 = 2x + 4.
    - A) x = 11
    - B) x = 9
    - C) x = 7
    - D) x = 5
    - E) x = 3
    1 point

13. A company decides to increase its production by 20% next quarter. If the current production is 500 units, what will be the new production?
    - A) 600 units
    - B) 650 units
    - C) 700 units
    - D) 750 units
    - E) 800 units
    1 point

14. A rectangle's area is 36 square units. If the length is 6 units, what is the width?
    - A) 6 units
    - B) 9 units
    - C) 12 units
    - D) 18 units
    - E) 36 units
    1 point

15. A circle's circumference is 12π units. What is the radius of the circle?
    - A) 3 units
    - B) 6 units
    - C) 9 units
    - D) 12 units
    - E) 18 units
    1 point

16. A survey was conducted to find out the favorite juice among children. 20% of the children preferred apple juice, 15% preferred orange juice, and 10% preferred grape juice. If 150 children participated in the survey, how many children preferred grape juice?
    - A) 15
    - B) 20
    - C) 25
    - D) 30
    - E) 35
    1 point

17. Solve the equation: 4x - 5 = 11.
    - A) x = 3
    - B) x = 4
    - C) x = 5
    - D) x = 6
    - E) x = 7
    1 point

18. Evaluate the expression: 5^2 - 3^2.
    - A) 16
    - B) 18
    - C) 20
    - D) 22
    - E) 24
    1 point

19. A square's area is 81 square units. What is the length of one side of the square?
    - A) 3 units
    - B) 6 units
    - C) 9 units
    - D) 12 units
    - E) 18 units
    1 point

20. A cylinder's volume is 36π cubic units. If the height is 6 units, what is the radius of the cylinder?
    - A) 3 units
    - B) 6 units
    - C) 9 units
    - D) 12 units
    - E) 18 units
    1 point