1. Find the number of roots of \( |x|^2 + 7|x| + 12 = 0 \).

2. Find the value of \( \sqrt{132} - \sqrt{132} - \sqrt{132} - \ldots \) (Continued).

3. Find the value of \( x \), when \( 4(4^{2x+1}) - 2(4^{x+1}) + 1 = 0 \).

4. If \( x + 2y + 3z = 21 \) and \( 3x + 2y + z = 43 \) then find the value of \( x + y + z \).

5. Find the unit digit of \((72)^{431}\).

6. Find the remainder of \(3^{43} \) when divided by 4.

7. Students of a class are made to stand in rows. If 4 students are extra in each row, then there would be 2 rows less. If four students are less in each row, then there would be 4 more rows. What is the number of students in the class?

8. If \( A:B = 3:2 \), \( B:C = 4:3 \) and \( C:D = 3:5 \), then divide Rs. 360 among \( A, B, C \) and \( D \). Arrange them in sequential order.

9. In a circle of radius 41 m, \( AB \) and \( CD \) are two equal parallel chords of lengths 80 m each. What is the distance between the chords?

10. (a) The value find of \( x \) if \( 5^{x-3} \cdot 3^{2x-8} = 225 \).

    (b) If \( 4 = \sqrt{x} + \sqrt{x} + \sqrt{x} + \ldots \), then find the value of \( x \).