

Checkpoint

Answer the following questions:

1. The value of x which satisfies the equation $4x - 8 = 0$ is
(a) $x = -2$ (b) $x = 2$
(c) $x = 4$ (d) $x = -8$
2. Three-fourth of a certain number is 27. The number is
(a) 36 (b) 54
(c) 18 (d) 20
3. The sum of two consecutive multiples of 6 is 78. One of them is
(a) 18 (b) 24
(c) 36 (d) 54
4. If $3(x - 4) = 9$, then the value of x is
(a) 6 (b) 8
(c) 7 (d) 9
5. The value of y for which $\frac{3y + 2}{y + 3} = 1$ is
(a) $y = 1$ (b) $y = \frac{1}{2}$
(c) $y = 2$ (d) $y = 3$
6. Solve the following equation
$$\frac{(2x + 1) - (3x + 1)}{(3x - 2) - (4x + 1)} = \frac{1}{2}$$
7. The sum of the digits of two-digit number is 15. If 9 is added to the number, the digits are interchanged. Find the number.
8. If $x = \frac{-3}{2}$ and $y = \frac{-5}{7}$ is a solution of the equations $2x + 3k_1 = 0$ and $7y - 5k_2 = 0$, find the values of k_1 and k_2 .
9. The width of a rectangle is $\frac{2}{3}$ of its length. If the perimeter is 100 units, find the dimensions of the rectangle.
10. I have collected coins in a piggy bank. The day I opened it, I found I had 3 times as many 50 paise coins as one rupee coins. The total amount in the piggy bank is ₹ 150. How many coins of each kind are there?