

Algebra Topics: Solving Equations

1. Solve the following equation

$$5x - 6 = 3(10 - x) \quad [3]$$

2. Solve the following equation

$$\frac{3x + 1}{4} - \frac{2x + 1}{2} = \frac{3}{4} \quad [3]$$

3. Solve the following equation

$$\frac{4x - 1}{4} + \frac{x + 8}{2} = \frac{3}{4} \quad [3]$$

4. Solve the following equation

$$9x - 1 = 4(x + 5) \quad [3]$$

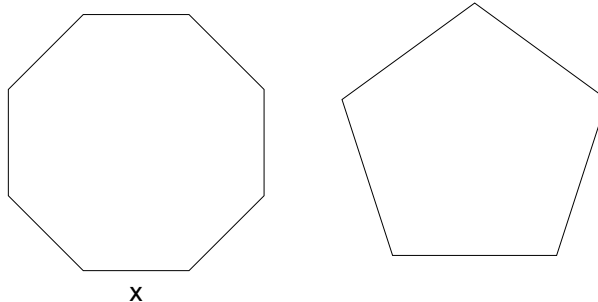
5. Solve the following equation

$$5x + 6 - \frac{4x - 1}{2} = 8 \quad [3]$$

6. Solve the equation

$$16x - 5 = 3(4x + 7) \quad [3]$$

7. The sides of a rectangular octagon are x cm long. Each side of a regular pentagon is 6 cm longer than each side of the octagon. The perimeter of the octagon is 3 cm longer than the perimeter of the pentagon.



- a) Write down an equation that x satisfies. [2]
b) Solve the equation and hence find the length of a side of the pentagon. [3]

8. Solve the following equation

$$\frac{2x - 3}{6} + \frac{x + 2}{3} = \frac{5}{2} \quad [4]$$

9. Solve the following equation

$$5x + 6 - \frac{4x - 1}{2} = 8 \quad [3]$$

10. Solve the following equation

$$\frac{2x + 3}{3} - \frac{x - 1}{4} = 5 \quad [4]$$

11. Solve the following equation

$$\frac{15 - 4x}{7} = 3 \quad [3]$$

12. Solve the following equation

$$\frac{4x}{3} - \frac{x}{6} = 2 \quad [3]$$