

explain me basics of linear equations

Linear equation

↙ variable
↓
 x, y, a, b, z

↙ constant
 $2, 3, 5, 3, \sqrt{2}$

$$\boxed{3x - 5 = 7}$$

1/4

Q1

$$\underline{3x - 2} = \underline{8x - 12}$$

$$\boxed{x = 2} \quad \underline{\text{verify}}$$

L.H.S

$$\begin{aligned} & 3x - 2 \\ &= 3 \times 2 - 2 \\ &= 6 - 2 = 4 \end{aligned}$$

R.H.S

$$\begin{aligned} & 8x - 12 \\ &= 8 \times 2 - 12 \\ &= 16 - 12 \\ &= 4 \end{aligned}$$

2/4

Q2

Hit & trial

$$i) \quad \underline{x + 3} = \underline{12} \quad x = ?$$

L.H.S

$$x + 3$$

putting $x = 6$

$$6 + 3 = 9$$

putting $x = 8$

$$8 + 3 = 11$$

putting $\boxed{x = 9}$ ✓