

$$6(3x + 2) - 5(6x - 1) = 3(x - 8) - 5(7x - 6) + 9x$$

ANSWER:

We have:

$$6(3x + 2) - 5(6x - 1) = 3(x - 8) \\ - 5(7x - 6) + 9x$$

$$\Rightarrow 18x + 12 - 30x + 5 = 3x - 24 - 35x + 30 \\ + 9x$$

$$\Rightarrow 18x - 30x - 3x + 35x - 9x = -24 + 30 \\ - 12 - 5 \quad (\text{Transposing } 3x, 9x \text{ and} \\ - 35x \text{ to LHS and } 12 \text{ and } 5 \text{ to RHS})$$

$$\Rightarrow 53x - 42x = 30 - 41$$

$$\Rightarrow 11x = -11$$

$$\Rightarrow x = \frac{-11}{11}$$

$$\Rightarrow x = -1$$