

Que. If $(3x + 5y) : (7x - 4y) = 7 : 4$, then find value of $x : y$.

Ans:
$$\frac{3x + 5y}{7x - 4y} = \frac{7}{4} \quad (\text{given})$$

$$\Rightarrow 4(3x + 5y) = 7(7x - 4y) \quad [\text{By cross multiplication}]$$

$$\Rightarrow 12x + 20y = 49x - 28y$$

$$\Rightarrow 2x = 48y$$

$$\Rightarrow \frac{x}{y} = \frac{48}{2} = 24$$

$$x : y = 24 : 1 \quad \text{Ans:}$$