1.

let required no. = x

according to condition

$$8\left(x - \frac{5}{2}\right) = 3x$$

$$\Rightarrow \overset{4}{\cancel{8}}\left(\frac{2x-5}{\cancel{2}}\right) = 3x$$

$$\Rightarrow 8x - 20 = 3x$$

$$\Rightarrow 8x - 3x = 20$$

$$\Rightarrow 5x = 20$$

$$\Rightarrow x = \frac{\overset{4}{\cancel{20}}}{\underset{1}{\cancel{5}}}$$

$\therefore$ required no. = 4

2.

let smaller number = x

larger number = $5x$

according to condition

$$5x + 21 = 2(x + 21)$$

$$\Rightarrow 5x + 21 = 4x + 42$$

$$\Rightarrow 5x - 4x = 42 - 21$$

$$\Rightarrow x = 21$$

$\therefore$ Smaller no. = x = 21

larger no. = $5x$

= 5×21

= 105