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Amarpreet Singh

8th

Ex. 2.3

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ਹੇਠ ਲਿਖੀਆਂ ਸਮੀਕਰਨਾਂ ਨੂੰ ਹੱਲ ਕਰੋ ਅਤੇ
ਜਾਂਚ ਕਰੋ ਕਿ ਉਹਨਾਂ ਦੀ ਪੁਸ਼ਟਤਾ ਕਰੋ:-

① $3x = 2x + 18$

$$3x - 2x = 18$$

$$x = 18 \text{ ਉੱਤੇ}$$

ਪੁਸ਼ਟਤਾ :- $x = 18$ ਉੱਤੇ:-

$$\text{ਖੱਬਾ ਪਾਸਾ} = 3x = 3 \times 18 = 54$$

$$\text{ਸੱਜਾ ਪਾਸਾ} = 2x + 18 = 2 \times 18 + 18$$

$$= 36 + 18 = 54$$

$$\text{ਖੱਬਾ ਪਾਸਾ} = \text{ਸੱਜਾ ਪਾਸਾ}$$

$\therefore x = 18$ ਸਹੀ ਉੱਤੇ ਹੈ।

② $5x - 3 = 3x - 5$

$$5x - 3x = -5 + 3$$

$$2x = -2$$

$$x = \frac{-2}{2} = -1 \text{ ਉੱਤੇ}$$

ਪੁਸ਼ਟਤਾ :- $x = -1$ ਉੱਤੇ:-

$$\text{ਖੱਬਾ ਪਾਸਾ} = 5x - 3 = 5(-1) - 3 = -5 - 3 = -8$$

$$\text{ਸੱਜਾ ਪਾਸਾ} = 3x - 5 = 3(-1) - 5 = -3 - 5 = -8$$

$\text{ਖੱਬਾ ਪਾਸਾ} = \text{ਸੱਜਾ ਪਾਸਾ} \therefore$ ਉੱਤੇ ਸਹੀ ਹੈ।

ਇਹ ਸਮੀਕਰਨ ਖੁੱਲ੍ਹ ਕੇ:

$$(3) \quad 5x + 9 = 5 + 3x$$

$$(4) \quad 4x + 3 = 6 + 2x$$

$$(5) \quad 2x - 1 = 14 - x$$

$$(6) \quad 8x + 4 = 3(x-1) + 7$$

$$8x + 4 = 3x - 3 + 7$$

$$8x + 4 = 3x + 4$$

$$8x - 3x = 4 - 4$$

$$5x = 0$$

$$x = \frac{0}{5} = 0 \quad \text{ਹੁੰਦਾ}$$

ਪੜਤਾਲ :- $x = 0$ ਤੇ

$$\text{ਖੱਬਾ ਪਾਸਾ} = 8x + 4 = 8 \times 0 + 4 = 0 + 4 = 4$$

$$\begin{aligned} \text{ਸੱਜਾ ਪਾਸਾ} &= 3(x-1) + 7 = 3(0-1) + 7 \\ &= 3(-1) + 7 = -3 + 7 = 4 \end{aligned}$$

$$\text{ਖੱਬਾ ਪਾਸਾ} = \text{ਸੱਜਾ ਪਾਸਾ}$$

$$\therefore x = 0 \quad \text{ਹੁੰਦਾ ਸਹੀ ਹੈ।}$$

$$(7) \quad x = \frac{4}{5} (x+10)$$

$$5x = 4(x+10)$$

$$5x = 4x + 40$$

$$5x - 4x = 40$$

$$x = 40 \quad \text{ਹੁੰਦਾ}$$

પરિચય:- $x = 40$ કરો

ધર્મ યાત્રા = $x = 40$

મર્મ યાત્રા = $\frac{4}{5}(x+10) = \frac{4}{5}(40+10)$

= $\frac{4}{5} \times 50 = 4 \times 10 = 40$

ધર્મ યાત્રા = મર્મ યાત્રા

$\therefore x = 40$ છે તે જાણીએ.

(8) $\frac{2x}{3} + 1 = \frac{7x}{15} + 3$

$\frac{2x}{3} - \frac{7x}{15} = 3 - 1$

$\frac{2x \times 15 - 7x \times 3}{3 \times 15} = 2$

$\frac{30x - 21x}{45} = 2$

$\frac{9x}{45} = 2$

$9x = 2 \times 45 = 90$

$x = \frac{90}{9} = 10$ છે તે જાણીએ.

યસરકાર :- $x = 10$ હોશે

$$\begin{aligned} \text{મધ્યક યામ} &= \frac{2x}{3} + 1 = \frac{2 \times 10}{3} + 1 = \frac{20}{3} + 1 \\ &= \frac{20+3}{3} = \frac{23}{3} \end{aligned}$$

$$\begin{aligned} \text{મધ્યક યામ} &= \frac{7x}{15} + 3 = \frac{7 \times 10}{15} + 3 = \frac{14}{3} + 3 \\ &= \frac{14+9}{3} = \frac{23}{3} \end{aligned}$$

$$\text{મધ્યક યામ} = \text{મધ્યક યામ}$$

$\therefore x = 10$ હોશે મળી ગયો.

હિમે કુલ પિત્તર ત્રણ મહત્તર ઉપર વહે :-

$$(9) \quad 2y + \frac{5}{3} = \frac{26}{3} - y$$

$$(10) \quad 3m = 5m - \frac{8}{5}$$

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વૅરિડે। Ex-2.4 હે મહત્તરો ની વૅરિ વાળી હોશે
ઉપર વળે છે વૅરિડે રહે।