



DSSSB + SSC MTS

DSSSB PRT, TGT & PGT



दफ्तरी बैच

Part(A+B)

SCHOLAR BATCH

MATHS

Ratio and Proportion

(अनुपात और समानुपात)

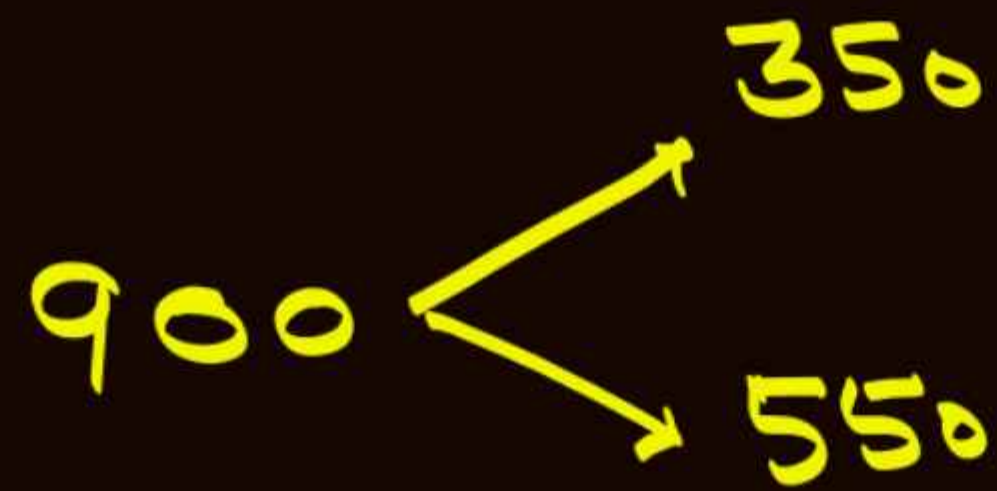


LIVE

27-06-2024 08:00 AM

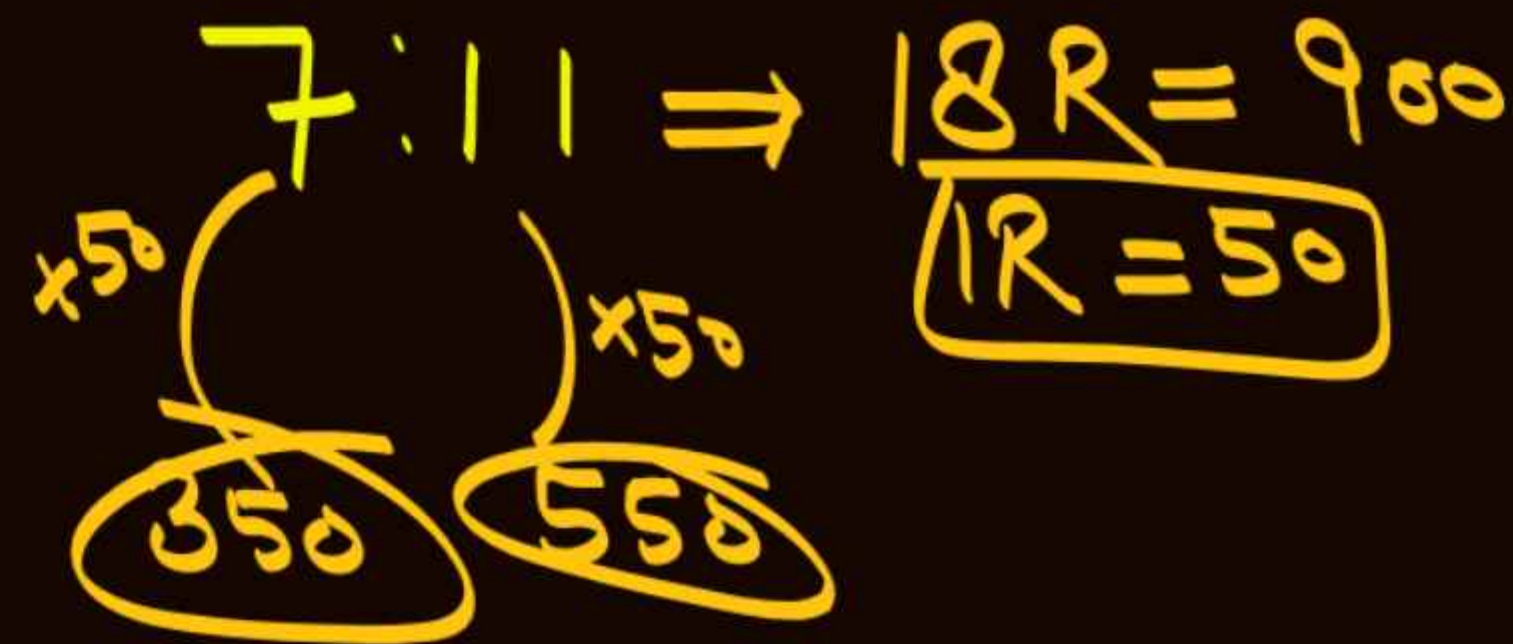
$$\frac{3}{9} = \boxed{3:9} \xrightarrow{\div 3} \text{मानक अनुपात} \boxed{1:3}$$

$$\begin{array}{l} \cancel{8:10} \checkmark \\ \boxed{4:5} \checkmark \end{array} \quad \begin{array}{c} \text{4R} \curvearrowright \text{5R} \\ \underline{4:5} \end{array}$$



350 : 550

7 : 11



$$\begin{array}{l}
 a:b \\
 (4:5) \times 6 \\
 \hline
 24:30 \\
 \hline
 4:5
 \end{array}$$

$$\begin{array}{l}
 a:b = 3:4 \\
 b:c = 4:5
 \end{array}$$

$$\begin{array}{l}
 a:b:c \\
 3:4:5
 \end{array}$$

$$\begin{array}{l}
 a:b = \overset{10}{(5)} : \overset{12}{(6)} \times 2 \\
 b:c = 12:13
 \end{array}$$

$$\begin{array}{l}
 a:b:c \\
 10:12:13 \checkmark
 \end{array}$$

~~$$60:72:78$$~~

$$10:12:13$$

$$\begin{array}{rcl}
 a & : & b : c \\
 3 & : & 4 \rightarrow 4 \\
 5 & \leftarrow & 5 : 7 \\
 \hline
 15 & : & 20 : 28
 \end{array}$$

$$\begin{array}{rcl}
 & 15 & 20 \\
 a : b & = & (3 : 4) \times 5 \\
 b : c & = & (5 : 7) \times 4 \\
 & 20 & 28
 \end{array}$$

$$\begin{array}{rcl}
 a : b : c \\
 15 : 20 : 28
 \end{array}$$

$$\begin{array}{rcl}
 a : b & = & (4 : 7) \times 4 \\
 & & \begin{array}{c} 16 \rightarrow 28 \\ 28 \end{array} \\
 b : c & = & 28 : 31
 \end{array}$$

$$\begin{array}{rcl}
 a : b : c \\
 16 : 28 : 31
 \end{array}$$

$$a:b = 7:11$$

$$b:c = 6:17$$

$$\begin{array}{r}
 a:b:c \\
 7:11 \rightarrow 11 \\
 \times 6 \leftarrow 6:17 \\
 \hline
 42:66:187
 \end{array}$$

$$a:b = 3:5$$

$$b:c \Rightarrow 7:4$$

$$c:d \Rightarrow 4:9$$

$$\begin{array}{r}
 a:b:c:d \\
 3:5:5:5 \\
 \times 7 \leftarrow 7:4 \\
 \times 4 \leftarrow 4:9 \\
 \hline
 84:140:20:45
 \end{array}$$

$$(a+b):c$$

$$(15+18):15$$

$$33:15$$

$$\boxed{11:5}$$

$$(a+c+d):(b+c)$$

$$65:33$$

$$\frac{(a+c+d)}{(b+c)} = ?$$

$$\# \quad a:b = 5:6$$

$$b:c = 6:5$$

$$c:d = 3:7$$

$$\begin{array}{cccc} a & : & b & : & c & : & d \\ 5 & : & 6 & : & 6 & : & 5 \\ 6 & : & 6 & : & 5 & : & 5 \\ 3 & : & 3 & : & 3 & : & 7 \\ \hline 90 & : & 108 & : & 90 & : & 210 \\ \hline 30 & : & 36 & : & 30 & : & 70 \\ \hline \boxed{15:18:15:35} \end{array}$$

$$a:d = ? \xrightarrow{3:7} 15:35$$

$$a:c = ? \quad 15:15 = 1:1$$

$$b:d = ? \quad 18:35$$

$$a:b:c = ? \quad 15:18:15$$

$$\underline{a:b:c:d = ?} \quad 5:6:5$$

$$2(a+c):3(b+d)$$

$$\hookrightarrow \frac{A}{3} = \frac{B}{4} = \frac{C}{5} \text{ है तो } A:B:C = ?$$

$$3:4:5$$

$$3A = 4B = 5C \text{ है तो } A:B:C = ?$$

$$20:15:12$$

$$\text{LCM} \Rightarrow 60$$

$$\frac{3A}{60} = \frac{4B}{60} = \frac{5C}{60}$$

$$\frac{A}{20} = \frac{B}{15} = \frac{C}{12}$$

$$\frac{A}{20} = \frac{B}{15} = \frac{C}{12}$$

$$3A = 4B = 5C$$

$$A:B:C$$

$$20:15:12$$



1. If $3A = 2B = 4C$, then what is $A:B:C$?

यदि $3A = 2B = 4C$ है तो $A:B:C$ क्या है?

(a) 3:2:4

(b) 6:4:3

(c) 4:6:3

(d) 2:3:4

→ 8:12:6

4:6:3

$$\text{LCM} = 30$$

$$\frac{3A}{4 \times 30} = \frac{5B}{6 \times 30} = \frac{2C}{3 \times 30}$$

$$\frac{A}{40} = \frac{B}{36} = \frac{C}{45}$$

$$A : B : C$$

$$40 : 36 : 45$$

$$\frac{3A}{4} = \frac{5B}{6} = \frac{2C}{3}$$

$$A : B : C$$

$$\frac{5}{6} \times \frac{2}{3} : \frac{3}{4} \times \frac{2}{3} : \frac{2}{5} \times \frac{5}{2}$$

$$\text{LCM } 72 \left(\frac{5}{9} : \frac{1}{2} : \frac{5}{8} \right)$$

$$\frac{72 \times 5}{9} : \frac{72 \times 1}{2} : \frac{72 \times 5}{8}$$

$$40 : 36 : 45$$

LCM $\Rightarrow$ 45

$$\frac{\cancel{5}A}{4} = \frac{\cancel{3}B}{7} = \frac{\cancel{9}C}{5} \quad \text{है तो } A:B:C = ?$$

$\begin{matrix} \times 45 \\ 9 \end{matrix}$
 $\begin{matrix} \times 45 \\ 15 \end{matrix}$
 $\begin{matrix} \times 45 \\ 5 \end{matrix}$

$$\frac{A}{36} = \frac{B}{185} = \frac{C}{25}$$



3. If $3P = 5Q = 15R$, then what is $P:Q:R$?

यदि $3P = 5Q = 15R$ है, तो $P:Q:R$ क्या होगा?

- (a) 5:3:4**
- (b) 5:3:1**
- (c) 3:5:15**
- (d) 15:5:3**