

Percentage (प्रतिशत)

per'cent' ——— cent of 100

$$\underline{5\% = \frac{5}{100} = \frac{1}{20} = .05}$$

$$\underline{5\% \text{ of } 60 = 3}$$

$$\underline{\frac{1}{20} \times 60 = 3}$$

$$\underline{.05 \times 60 = 3}$$

$$\frac{23}{4 \times 5} \times 100$$

2

$$= \frac{115}{2}$$

$$= 57.5\%$$

Ex: 23 ? % of 40

$$\frac{20}{4 \times 5}$$

$$10\% \times 5 = 50\%$$

$$\frac{3}{7.5\%}$$

$$\frac{10\%}{1\%} = 10$$

$$57.5\%$$

LA: 123 1 -/. 9 390

117 =

39 x 3

30%

6

1.57.

10% — 39

1% — 3.9

= 31.5%

$$\frac{223 \times 100}{390}$$

Ex: $\frac{223}{?} = \frac{390}{?}$

$$\frac{39 \times 5}{10\% \times 5}$$

$$57\%$$

$$57\%$$

$$\frac{28}{7\%}$$

$$\frac{10\% - (39)}{1\%} = 3.9$$

Ex: 439 — 1% of 837

$$\begin{array}{r} 84 \times 5 \\ = 420 \end{array}$$

$$50\%$$

$$\begin{array}{r} 19 \\ \downarrow \\ 2.5\% \end{array}$$

$$\textcircled{52.5\%}$$

$$\begin{array}{r} 10\% - 83.7 \\ \hline \approx 84 \end{array}$$

$$\begin{array}{r} 1\% - 8.4 \\ \hline \end{array}$$

$$\frac{24.3}{10} \times 543$$

Ex: $\frac{24.3}{10} \div 543 = ?$

$$\frac{10 \div \times 2 + 1 \div \times 4 + .1 \div \times 3}{10}$$

$$\rightarrow 54.3 \times 2 + 5.43 \times 4 + .543 \times 3$$

$$= 108.6 + 20 + 1.6 + 1.6$$

$$\approx 131.8$$

$$\approx 132$$

$$\frac{63.4 \times 629}{100}$$

Ex: $\frac{63.4}{100} \times 629$

60% 3% .4%

$$\frac{62.9}{100} \times 6 + \frac{6.29}{100} \times 3 + \frac{0.629}{100} \times 4$$

$$= 372 + 5.5 + 18 + 1 + 2.5$$

$$\boxed{= 399}$$

$$\begin{array}{r} 72 \cdot 43 \\ \hline 10 \end{array} \times 724$$

Ex: $72 \cdot 43 \cdot d$ 724

$\swarrow$ $\searrow$ $\searrow$
 $70 \cdot$ $2 \cdot$ $4 \cdot$

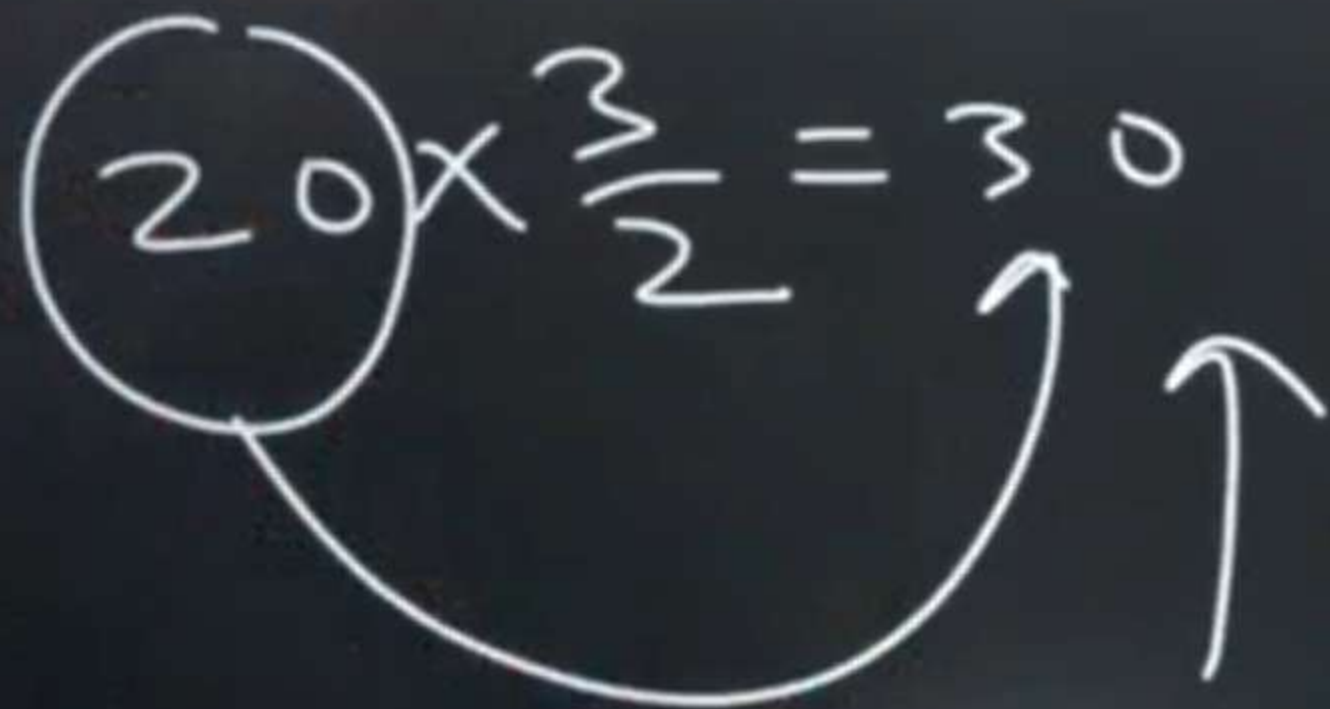
$$\Rightarrow \underline{72 \cdot 4} \times 7 + \underline{7 \cdot 24} \times 2 + \underline{724} \times 4$$

$$504 + 3 + 14 \cdot 5 + 3$$

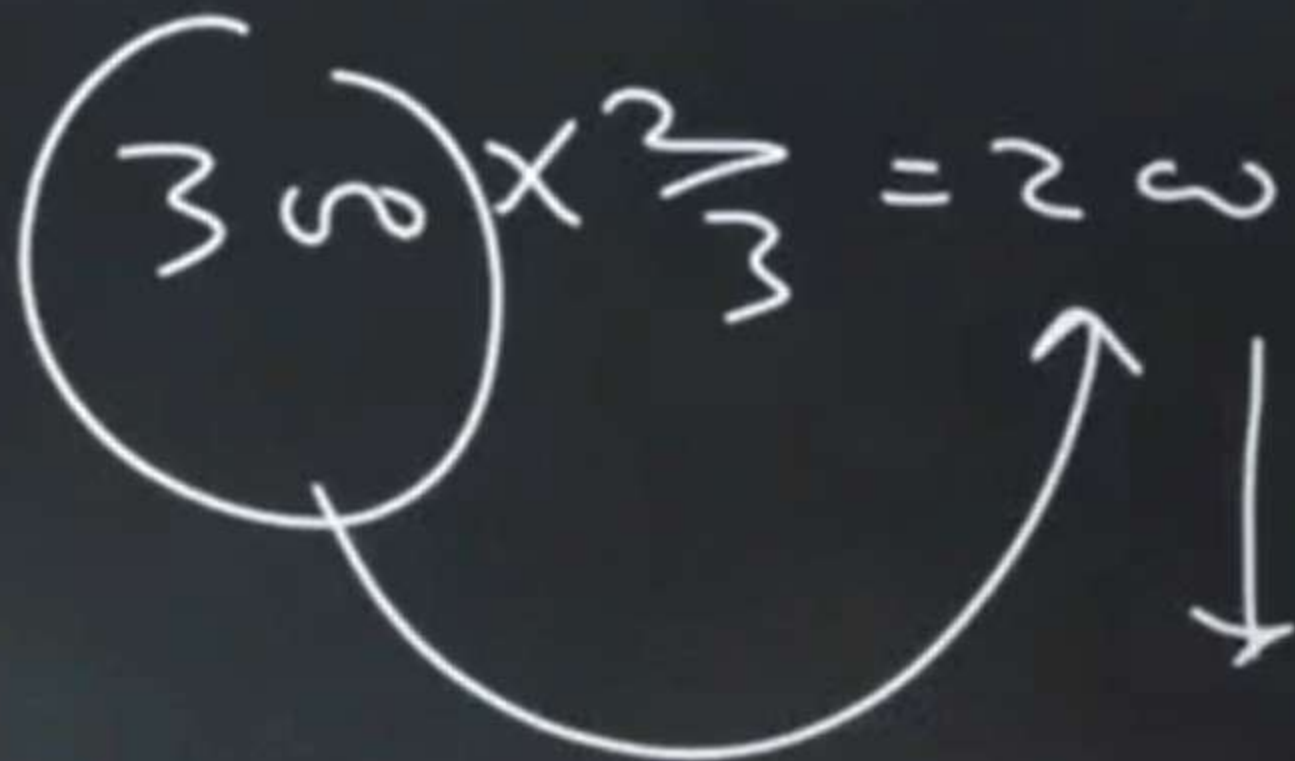
$$= 524 \cdot 5$$

Rule of fraction (most cut rule)

$$\frac{3}{2} > 1$$

$$(20) \times \frac{3}{2} = 30$$


$$\frac{2}{3} < 1$$

$$(30) \times \frac{2}{3} = 20$$


$$\frac{I_{\omega}}{I_{20}} < 1, \quad \frac{I_{20}}{I_{\omega}} > 1$$

Ex:

$$P \xrightarrow{+20\%} P$$

so

$$\cancel{80} \times \frac{I_{20}}{I_{\omega}} = 60$$

$$\frac{120}{120} < 1, \quad \frac{120}{120} > 1$$

Ex

$$\begin{array}{ccc} P & +20\% & P \\ \hline & & \textcircled{72} \end{array}$$

$$72 \times \frac{100}{120}$$

$$= 60.$$

$$\frac{I_{\omega}}{I_0} > 1, \quad \frac{I_0}{I_{\omega}} < 1$$

Ex:

$$\begin{array}{ccc}
 P & \xrightarrow{-10\%} & P \\
 60 & & 60 \times \frac{90}{100} \\
 & & = \underline{54}
 \end{array}$$

$$\frac{100}{90} > 1, \quad \frac{90}{100} < 1$$

Ex

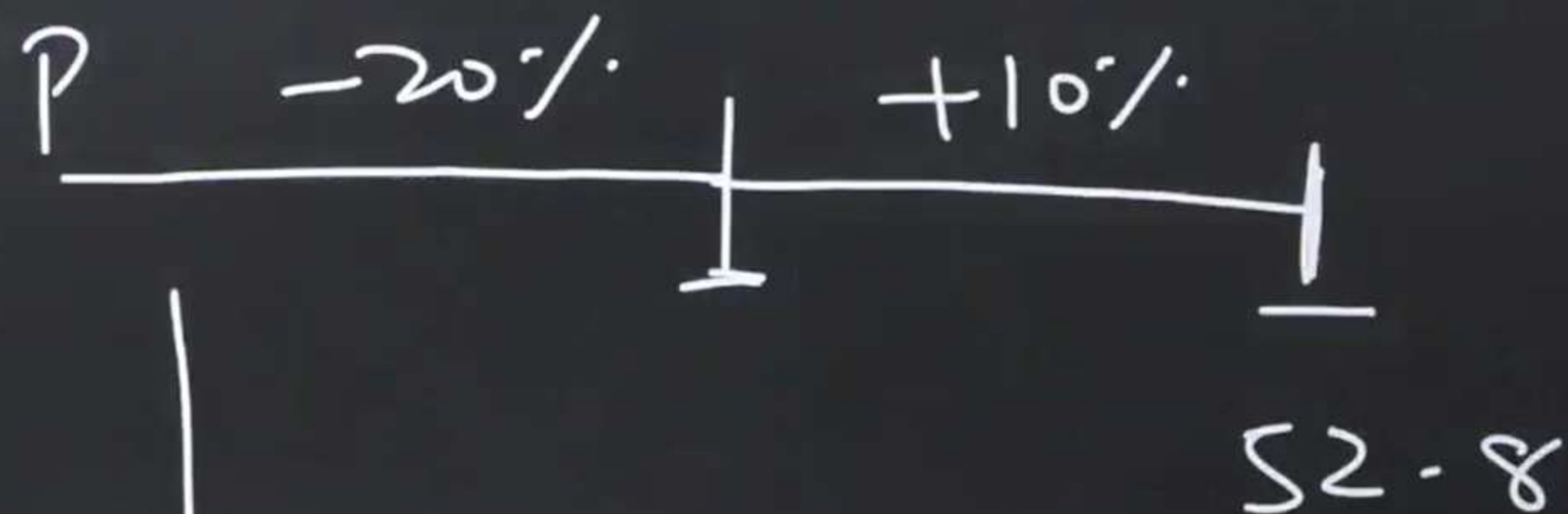
$$\begin{array}{r} P \quad -10\% \quad P \\ \hline 81 \end{array}$$

$$81 \times \frac{100}{90}$$

$$= 90.$$

$$\frac{E_x \cdot x}{P} \times \frac{80}{100} \times \frac{110}{100} = 52.8$$

$$x = \frac{52.8 \times 100 \times 100}{80 \times 110} = 48$$



$$52.8 \times \frac{100}{110} \times \frac{100}{80} = 48$$