

DAY - 2

classmate

Date _____

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Q1) If 20% of $a = b$, then b% of 20 is?

Ans 20% of $a \rightarrow \frac{20 \times a}{100} = \frac{a}{5} = b$

b% of 20 $\rightarrow \frac{b \times 20}{100} = \frac{b \times 1}{5}$

$= \frac{a}{5} \times \frac{1}{5} = \frac{a}{25} = \frac{4a}{100}$

$= 4\% \text{ of } a$

Q2) In a certain school, 20% of students are below 8 years. The no. of students above 8 years of age is $\frac{2}{3}$ of number of students of 8 years of age which is 48. What is total number of students in school?

Ans Total students = x

Student below 8 age: 20% of $x = \frac{20x}{100}$

above 8 year: 80% of x
 $= 48 + \frac{2}{3} \times 48 = 80$

$\frac{80}{100} \times x = 80$

$x = \frac{80 \times 100}{80} = 100$

There are total 100 students

Q3) Two no.s A, B are such that sum of 5% of A & 4% of B is 2-3% of sum of 6% of A & 8% of B. Find A:B

$$\text{Ans } (5\% \text{ of } A) + (4\% \text{ of } B) = \frac{2}{3} (6\% \text{ of } A + 8\% \text{ of } B)$$

$$= \frac{5A}{100} + \frac{4B}{100} = \frac{2}{3} \left(\frac{6A}{100} + \frac{8B}{100} \right)$$

$$= 3 \left[\frac{5A + 4B}{100} \right] = 2 \left[\frac{6A + 8B}{100} \right]$$

$$15A - 12A = 16B - 12B$$

$$3A = 4B$$

$$A:B = 4:3$$

Q4) A student multiplied a number by $\frac{3}{5}$ instead of $\frac{5}{3}$. Find error %.

$$\text{Ans } \% \text{ error} = \frac{\frac{5}{3} - \frac{3}{5}}{\frac{5}{3}} \times 100$$

$$= \frac{\frac{25-9}{15}}{\frac{5}{3}} \times 100 = \frac{16 \times 3}{15 \times 5} \times 100$$

$$= 64\% \text{ error}$$

Q5 In an election btw 2 candidates, one got 55% of total ^{valid} votes, 20% were invalid. Total no. of votes = 7500, what is no. of valid votes of other candidate?

Ans

$$\text{Total votes} = 7500$$

20% votes are invalid

$$\frac{20}{100} \times 7500 = 1500$$

$$\text{No. of valid votes} = 6000$$

$$\begin{array}{r} 6000 - 3300 \\ \hline = 2700 \text{ votes} \end{array}$$