

Ch-6

Percentage: (out of 100)

Symbol $\Rightarrow$ %

Percentage is a fraction whose numerator is 1 and denominator is 100.

$$\% = \frac{1}{100}$$

$$5\% = \frac{\cancel{5}^1}{\cancel{100}_{20}} = \frac{1}{20}$$

Exam Lily

Total = 80

X got = 20 mark.

Find percentage of mark.

Out of 80, X got 20 marks

$$1) \quad 1 \quad \frac{20}{80}$$

$$1) \quad 1 \quad \frac{20 \times 100}{80} = \frac{2000}{80}$$

= 25 marks.

X obtained 25% marks.

Half yearly

Total 650

Abul got 520 marks.

Find percentage of marks.

Out of 650, Abul got 520 mark

$$1) \quad 1 \quad \frac{520}{650}$$

$$1) \quad 100 \quad \frac{520 \times 100}{650} = \frac{52000}{650}$$

= 80 mark

Abul got 80% mark.

Ch-6

Remove % or Express in fraction/Decimal

$$\begin{aligned} \textcircled{1} \textcircled{a} \quad 1\% &= \frac{1}{100} \text{ [Fraction form]} \\ &= 0.01 \text{ [Decimal form]} \end{aligned}$$

$$\begin{aligned} \textcircled{b} \quad 100\% &= \frac{100}{100} \\ &= 1 \end{aligned}$$

$$\begin{aligned} \textcircled{c} \quad 34\% &= \frac{34}{100} \\ &= \frac{17}{50} \text{ [fraction]} \\ &= \frac{34}{100} = 0.34 \text{ [Decimal]} \end{aligned}$$

$$\begin{aligned} \textcircled{d} \quad 60\% &= \frac{60}{100} \\ &= \frac{6}{10} = \frac{3}{5} \\ &= 0.60 \end{aligned}$$

$$\begin{aligned} \textcircled{e} \quad 137\% &= \frac{137}{100} \\ &= 1 \frac{37}{100} \\ &= 1.37 \end{aligned}$$

$$\begin{aligned} \textcircled{f} \quad 300\% &= \frac{300}{100} \\ &= 3 \end{aligned}$$

$$\begin{aligned} \textcircled{g} \quad 1.7\% &= \frac{17}{10} \times \frac{1}{100} \\ &= \frac{17}{1000} \text{ [Fraction]} \\ &= 0.017 \text{ [Decimal]} \end{aligned}$$

$$\begin{aligned} \textcircled{h} \quad 2\frac{2}{5}\% &= \frac{34}{5} \times \frac{1}{100} \\ &= \frac{3}{125} \text{ [Fraction]} \end{aligned}$$

$$\begin{aligned} * \quad 2\frac{2}{5}\% &= \frac{12}{5} \times \frac{1}{100} \\ &= \frac{12}{500} = \frac{12 \times 2}{500 \times 2} = \frac{24}{1000} \\ &= 0.024 \end{aligned}$$

$$\begin{aligned} \textcircled{i} \quad 2\frac{3}{10}\% &= \frac{23}{10} \times \frac{1}{100} \end{aligned}$$

$$\begin{aligned} &= \frac{23}{1000} \text{ [Fraction]} \\ &= 0.023 \text{ [Decimal]} \end{aligned}$$

$$\textcircled{j} \quad 5\frac{2}{5}\% \quad \textcircled{k} \quad 0.25\%$$

$$\textcircled{l} \quad 0.625\%$$

Try yourself

	Fraction	Decimal		Fraction	Decimal
a. 1%,			g. 1.7%		
b. 100%			h. $2\frac{2}{5}\%$		
c. 34%			i. $2\frac{3}{10}$		
d. 60 %			j. $5\frac{3}{5}$		
e. 137%			k. 0.25%		
f. 300%			l. 0.625%		