

General Ability

Lecture 01

Practice Work

#1

An article was purchased at RS 600 and sold at RS 750. What is the percentage profit?

Sol: -

Purchased price = 600

Sold price = 750

Profit percentage = ?

By applying formula:-

$$\text{Profit \%} = \frac{\text{Profit}}{\text{Purchased Price}} \times 100$$

$$\text{Profit} = 750 - 600 = 150$$

$$= \frac{150}{600} \times 100$$

$$= 25\%$$

$$\text{Profit \% age} = 25\%$$

#3

In an aeroplane 400 passengers are board,

Write the final answer in the form of statement

#2

In a parking there are 800 cars in which 80% cars are Pakistan made. Find the no. of car?

Sol: -

Cars in parking = 800

%age of Pak cars = 80%

Number of cars = ?

By applying formula:-

$$= \frac{80}{100} \times 800$$

$$\text{No. of cars} = 640$$

in which 52% are Pakistani, 17% Chinese, 12% Iranian and rest of passengers are British?

Sol: - (a) Find passengers of each country:
(b) %age of British

#3

Sol.

$$\begin{aligned} \text{Pak Passengers} &= 52\% \\ &= \frac{52}{100} \times 400 \end{aligned}$$

$$\begin{array}{r} 52 \\ \times 4 \\ \hline 208 \end{array}$$

$$\boxed{\text{Pak Passen.} = 208}$$

$$\begin{aligned} \text{Chinese passen} &= 17\% \\ &= \frac{17}{100} \times 400 \end{aligned}$$

$$\begin{array}{r} 17 \\ \times 4 \\ \hline 68 \end{array}$$

$$\boxed{\text{Ch. Pass.} = 68}$$

$$\begin{aligned} \text{Iranian Passen.} &= 12\% \\ &= \frac{12}{100} \times 400 \end{aligned}$$

$$\boxed{\text{Iranian P.} = 48}$$

Now:-

$$\begin{aligned} \text{Percentage of British} &= 52\% + 17\% + 12\% \\ &= 81\% \\ &= 100\% - 81\% = 19\% \end{aligned}$$

$$\begin{aligned} \text{British passengers} &= 19\% \\ &= \frac{19}{100} \times 400 \end{aligned}$$

$$\begin{array}{r} 19 \\ \times 4 \\ \hline 76 \end{array}$$

$$\boxed{\text{B.P.} = 76}$$

Ans

#4

If $\frac{1}{8}$ is decreased by

25%, we get?

Sol.

$$= \frac{25}{100} \left(\frac{1}{8} \right)$$

$$= \frac{25}{800} = \frac{1}{32}$$

$$= \frac{1}{32}$$

and now:-

$$= \frac{1}{8} - \frac{1}{32}$$

$$= \frac{4}{4} \times \frac{1}{8} - \frac{1}{32}$$

$$= \frac{4-1}{32}$$

$$= \frac{3}{32}$$

$$\boxed{= 0.09375}$$

Ans

#5

When 60 is subtracted from 60% of a no. the resulting no. is 60, What is the number?

the no. of votes of

the winning candidate

Sol. Let,

Total no. of votes = x = ?

Defeated votes = $\frac{30x}{100}$

= $\frac{3x}{10}$

10

$\frac{60x}{100} - 60 = 60$

$\frac{6x}{10} - 60 = 60$

$\frac{6x}{10} = 60 + 60$

$\frac{6x}{10} = 120$

$6x = 120 \times 10$

$6x = 1200$

$x = \frac{1200}{6}$

$x = 200$

Winning votes = $\frac{x - \frac{3x}{10}}{10}$

= $\frac{10x - 3x}{10}$

= $\frac{7x}{10}$

10

Difference of defeated and winning votes is:-

$\frac{7x}{10} - \frac{3x}{10} = 15000$

$\frac{7x - 3x}{10} = 15000$

$4x = 15000 \times 10$

$4x = 150000$

$x = \frac{150000}{4}$

$x = 37500$

Now,

#6

A candidate who gets 30% of total votes polled, is defeated by 15000 votes. Find

$$\begin{array}{r} 53 \\ 3750 \\ \times 7 \\ \hline 26250 \end{array}$$

#6

no. of winning votes = $\frac{7x}{10}$

$$= \frac{7(3750)}{10}$$

$$\text{no. of winning votes} = 26250$$

#7

In a college exam 52% of candidates failed in mathematics & 42% failed in English. If 17% failed in both subjects then the percentage of the cand. who pass in both subject is?

Sol.
Cand. failed in Maths = 52%
Cand. failed in Eng = 42%
Cand. failed in both = 17%
Cand. passed in both = ?
So,
Failed: $(52\% + 42\%) - 17\%$
 $= 94\% - 17\% = 77\%$
Passed: $100\% - 77\% = 23\%$

Sol.

Cand. failed in Maths = 52%

Cand. failed in Eng = 42%

Cand. failed in both = 17%

Cand. passed in both = ?

So,

Failed: $(52\% + 42\%) - 17\%$

$$= 94\% - 17\% = 77\%$$

Passed: $100\% - 77\% = 23\%$

$$100\% - 77\% = 23\%$$

#8

Nadeem spends 30% of his food articles 40% of remaining on clothes & 50% savings of remaining. If his monthly salary is 18400\$ how much money does he saves every month?

Income of Nadeem = 18400

$$\text{Exp. of food} = \frac{30 \times 18400}{100}$$

$$= 5520$$

$$\text{Remaining} = 18400 - 5520 = 12880$$

$$\text{Exp of clothes} = \frac{40}{100} \times 12880$$

$$= 5152$$

$$\text{Rem.} = 12880 - 5152$$

$$= 7728$$

$$\text{Savings} = \frac{50}{100} \times 7728$$

$$\text{Savings} = 3864$$

Sus

#10

#9

A man buys 5kg of meat at Rs 500/kg. In addition for every kilogram meat purchased he has to pay tax of 6% on selling price. Calculate the total amount of money that he has to pay?

Sol.

Price of 1kg = 500

Price of 5kg = 5 x 500 = 2500

So,

$$= 2500 + \frac{6}{100} \times 2500$$

$$= 2500 + 150$$

Total money to pay	= 2650	Rs
--------------------	--------	----

number?

Sol.

$$\frac{40x}{100} + 42 = x$$

$$\frac{4x}{10} + 42 = x$$

$$42 = x - \frac{4x}{10}$$

$$42 = \frac{10x - 4x}{10}$$

$$42 = \frac{6x}{10}$$

$$42 \times 10 = 6x$$

$$6x = 420$$

$$x = \frac{420}{6} = 70$$

#11

A metal bar weighs 8.15 ounces. 93% of the bar is silver.

how many of silver are in the bar?

#10

When 40% of a no. is added to 42, the result is the number itself. Find that

#11

Sol:-

Attempt in detail by giving subheadings

Silver	7.57	Ans
pres.		

$$= \frac{50}{156} = \frac{300}{1893}$$

$$= \frac{50}{3} = 16.6$$

#12

15 liters of a mixture contains 20% alcohol and the rest is water. If 3 liters of water be mixed in it, what is the percentage of alcohol in a new mixture?

Sol.

Mixture = 15 liters

Alcohol = 20%

Water = ?

New mixture = 15+3 = 18 liters

%age of alcohol = ?

So,

$$= \frac{20}{100} \times 15 = \frac{30}{10} = 3$$

Water = 3 liters

$$\% \text{age of alcohol} = \frac{\text{given}}{\text{Original}} \times 100$$

$$= \frac{3}{18} \times 100$$

%age of alcohol in new mixture	16.6%
--------------------------------	-------

#13

A student earned a grade of 80% in maths that had 20 problems. How many problem in that test did the student answer correctly?

Sol.

Earned grade = 80%

Total problems = 20

Problems Solved = ?

So,

$$= \frac{80}{100} (20)$$

$$= \frac{1600}{100}$$

Problems Solved	16
-----------------	----