

Date: _____

Date: _____

General Science and ability

Section no. 2

Question no. 6

Part A

q. Two person A and B share a pizza in ratio of 5:3. There are pizzas and medium size of slices of each is 8. How much slices each person receive?

Answer:

No. of Pizzas = one

Total no. of person = 2

Ratio of person 1 = $\frac{5}{8}$

Ratio of second person = $\frac{3}{8}$

No of slices each person receives = ?

= $\frac{5}{8} > \frac{3}{8}$ person one gets more pizza

$$\frac{5}{8} - \frac{3}{8} = \frac{2}{8}$$

person A get $\frac{2}{8}$ more slices than person B

~~(Part B)~~

A Candidate in Election 2024 gets 30% of the total votes polled is defeated by 15000 votes. Find the no. of votes of Winning Candidate?

Answer

Total no. of votes a candidate gets = 30%

However, total votes % is = 100

$$100 - 30\% = \boxed{70\%}$$

$$30\% \times \text{total votes} + 15000 = 70\% \times x$$

$$\frac{30}{100} \times x + 15000 = \frac{70}{100} \times x$$

$$= \frac{30}{100}x + 15000 = \frac{70}{100}x$$

$$x = 15000 \times \frac{100}{40}$$

$$= \frac{75000}{2}$$

$$x = 37500$$

70% is the figure through which the opponent won

$$70\% \text{ of it} = \frac{70}{100} \times 37500$$

no. of votes of winning candidates = 26250

Part C

C- 40 liters of mixture of milk and water contains 25% of water. When 10 liters of water is added, what will be % of milk in the final mixture?

Answer:

40 liters of mixture of
milk and water = 25% water

Adding water = 10 liters

% of milk in the final mixture = ?

In 40 liters = $100 - 25\% = 75\%$

75% of milk is present

25% of 40 liters

$$\frac{25}{100} \times 40 = 10\%$$

$$= 10 \text{ liters}$$

75% of 40 liters

$$\frac{75}{100} \times 40 = 30 \text{ litres}$$

Adding 10 liters more water

$$10 + 40 = 50 \text{ liters}$$

So the percentage of milk in
the final mixture =

$$\frac{30}{50} \times 100 = 60\%$$

(Part D)

Aslam can do a piece of work in 10 days, Ali in 15 days and Najam in 20 days.

How many days will it take if they all work together to do the same work?

Answer

No. of days Aslam takes to do a work = 10

Days Ali takes = 15

Najam takes the day = 20

Combine work done by all three in one day

$$= \frac{1}{10} + \frac{1}{15} + \frac{1}{20}$$

$$= \frac{6 + 4 + 3}{60} = \frac{13}{60} = 0.2$$

If they start doing a work they will complete it in less than a day.

Day _____ Date _____

(Question no. 7)

Part A

Find the missing terms

i) 11, 13, 17, 21, 23

ii) 10, 28, 91, 370, _____

Part B

A cloth merchant bought 35 shirts, each at a price of Rs. 280. He sold each of them for Rs. 308. Find the percentage of profit?

Answer:

$$\text{Total no. of shirts} = \boxed{35}$$

$$\text{price} = 280$$

$$\text{Selling price} = 308$$

$$\text{price} - \text{selling price} = 308 - 280$$

$$\boxed{\text{profit} = 28}$$

$$\text{percentage of profit} = \frac{28}{280} \times 100$$

Percentage of profit = 10%

Part C

c- Find the IQ of a child whose actual age is 10 years and chronological age is 12 years.

Answer

$$IQ = \frac{\text{Ratio of chronological age to mental age} \times 100}{\text{age}}$$

$$= \frac{12}{10} \times 100$$

$$= 120 \text{ is IQ}$$

Part D

The average height of 30 boys was calculated to be 150cm

It was detected later that one value of 165cm was wrongly

copied as 135cm. Find the correct mean.

Answer

Let the average height of
29 boys is denoted by x

Average height of 30th boy = y

$$\text{Mean} = \frac{x+y}{30}$$

$$150 = \frac{x+135}{30}$$

$$4500 = x+135$$

$$4500 - 135 = x$$

$$x = 4365$$

\therefore 165 value was
wrongly
copied as
135

$$\text{mean} = \frac{4365 + 165}{30}$$

$$\text{mean} = \frac{4530}{30}$$

$$\text{mean} = 151$$