

TALHA SARFRAZ KHAN

OB-59

SECTION - II

QUESTION # 07
(part a)

Let the missing number be x , and that x is divided by 6, so we get

$$\frac{x}{6}$$

Then 50 is added in that number.

Now the equation becomes

$$\frac{x + 50}{6}$$

Now, the total that is given is 60.

So, ~~the~~ the final equation becomes

$$\frac{x + 50}{6} = 60$$

2

//_/05

Now Subtract 50 on the other side
we get.

$$\frac{x}{6} = \frac{60}{6} \quad x + 50 = 60$$

$$\frac{x}{6} = 60 - 50$$

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

To find the value of x , multiply 6
on the other side with 10, we get

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

$$x = 10 \times 6$$

$$x = 60$$

So, the missing number or the value
of x is 60.

(part b)

Find the odd one out.

8, 16, 24, 34, 40, 48

→ In order to find the odd one out, we need to analyze the given series 8, 16, 24, 34, 40, 48

→ All the numbers in the series are multiples of 8 except 34.

- (i) $8 = 8 \times 1$, (ii) $16 = 8 \times 2$, (iii) $24 = 8 \times 3$
 (iv) $40 = 8 \times 5$ (v) $48 = 8 \times 6$

Whereas, 34 is not a multiple of 8 where the rest are.

Therefore 34 is the odd one out.

(Part c)

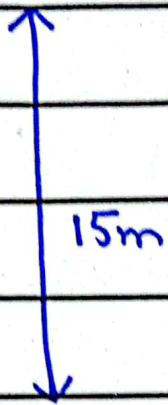
In order to find the aerial distance when base and height is given.

We can use Pythagoras theorem because ^{according} the data it forms right-angle triangle.

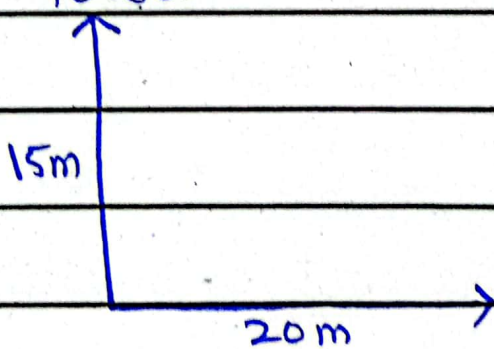
4

— / — / — 30

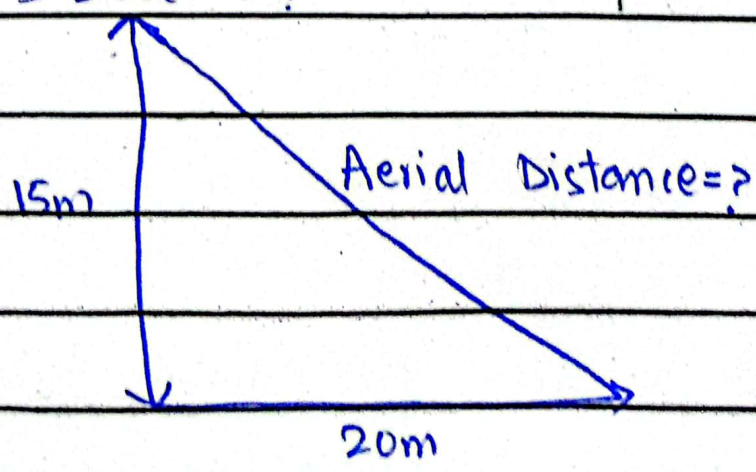
→ We know that height of the tower is 15m



→ A person is standing ^{20m} from the base of the tower



→ Aerial Distance = ?



By using Pathagorus Theorem, we get

$$(\text{Hypotenuse})^2 = (\text{Base})^2 + (\text{Perp})^2$$

$$(\text{Hyp})^2 = (B)^2 + (P)^2 \quad [\text{Put values of B, P}]$$

$$\begin{aligned} (\text{Hyp})^2 &= (20)^2 + (P)^2 \\ &= 400 + 225 \end{aligned}$$

$$H^2 = 625$$

Taking Square root on b/s both sides.

$$\sqrt{\text{Hypotenuse}^2} = \sqrt{625}$$

$$\boxed{\text{Hypotenuse} = 25}$$

From above calculations, aerial distance from tower is 25 meters

6

(Part - d)

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odd date tariff = Rs 1000

Even date tariff = Rs 2000

Totot amount paid = Rs. 30,000

let odd days be x

let even days be y

So, the total cost is

$$1000x + 2000y = 30,000$$

We know that starting date is 5th which is an odd date. So, the first day will charge Rs. 1000.

If $y = 10$, $x = 10$

Then this means 10 odd days and 10 even days.

So, the total cost becomes

7

1/1/20

$$\text{Cost of } x = 1000 \times 10 = 10000 \rightarrow \textcircled{i}$$

$$\text{Cost of } y = 2000 \times 10 = 20000 \rightarrow \textcircled{ii}$$

Adding \textcircled{i} & \textcircled{ii}

$$\text{Cost of } x + \text{Cost of } y$$

$$= 10000 + 20000$$

$$= 30,000 \text{ — which is equal}$$

to the total given -

So, the man stayed in the hotel for 20 days.

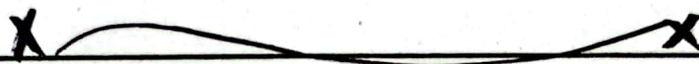
QUESTION # 08

(Part a)

→ The primary shape used for mosque's prayer halls is of a triangular shape.
The formula for that is

$$\text{Area} = \frac{1}{2} \times \text{base} \times \text{height}$$

→ Base is length of base of triangle.
Height is the distance in perpendicular



(Part - c)

According to given situation:-

(i) A is the brother of B, making A and B are siblings.

(ii) B is the sister of C, also makes B and C, siblings.

(iii) C is the father of D

(iv) Also, A and C are siblings

How D is related to A

→ Since, A, B, C are siblings and C is D's father. Then it concludes that A is the uncle of D.

→ If D is a male member then D is the nephew of A.

X ~~~~~ X

(part - d)

ROAR → URDU

R $\xrightarrow{+3}$ U

O $\xrightarrow{+3}$ R

A $\xrightarrow{+3}$ D

R $\xrightarrow{+3}$ U

Using same method of +3 Alphabets in Urdu we get

$$U \xrightarrow{+3} X$$

$$R \xrightarrow{+3} U$$

$$D \xrightarrow{+3} G$$

$$U \xrightarrow{+3} X$$

XUGX

~~URDU~~
~~URU~~

after 3 jumps in Alphabets
becomes XUGX

X ~~~~~ X

(Part - b)

Total mixture = 60 litres

In this milk and water ratio = 2:1

$$\text{Total Ratio} = 2(\text{milk}) + 1(\text{water}) = 3$$

$$\text{Milk Quantity} = \frac{2}{3} \times 60$$

$$= 40 \text{ litres}$$

$$\text{Water Quantity} = \frac{1}{3} \times 60$$

$$= 20 \text{ litres}$$

→ If the ratio is 1:2, the water quantity = ?

→ let x be that new quantity.

$$\text{Water} = 20 + x$$

The new ratio is 1:2, also $\frac{1}{2}$

$$\frac{1}{2} = \frac{40}{20+x} \quad (\text{For milk's value})$$

$$2 \quad 20+x \quad (\text{For Water's value})$$

Finding x :

$$\frac{1}{2} = \frac{40}{20+x}$$

$$40 \times 2 = 20 + x$$

$$80 = 20 + x$$

$$80 - 20 = x$$

$$x = 60 \text{ litres}$$

60 litres of water ~~is~~ to be added
for 1:2

x ~~~~~ x