Question no. 6

a)

investment ratio = 3 : 2

Sum of ratios = 3+2 = 5

let the profit is denoted by x.

profit after charity deposits = x - 5% x

$$= x - \frac{5}{100}x$$

$$= \frac{100x - 5x}{100}$$

$$= \frac{95x}{100}$$

Now Zahid's share $= \frac{3}{5} \times \left(\frac{95x}{100}\right)$

while Zahid's share

= 8550

So

$$8550 = \frac{3}{5}\left(\frac{95x}{100}\right)$$

$$\frac{8550 \times 500}{3 \times 95} = x$$

$$x = 15000$$

5

(B)

Sol:

$20\%\, a = b$

$0.2a = b$

Now

$0.2a = \frac{b}{100}\%$

$0.2a \times 100 = b\%$

$20a = b\%$

$a \times 20 \times 20 = b\% 20$

$a \times 400 = b\% 20$

$\frac{a \times 400}{100}\% = b\% 20$

$4a\% = b\% 20$

5

(C)

Let ratio of two numbers

$x : y = 2 : 3$

$\frac{x}{y} = \frac{2}{3}$

$x = \frac{2}{3}y$

Now

LCM × HCF = product of numbers.

$294 = x \times y$

$294 = \left(\frac{2}{3}y\right)y$

$\frac{294 \times 3}{2} = y^2$

$147 \times 3 = y^2$

$441 = y^2$

$\pm\sqrt{441} = \sqrt{y^2}$

$\boxed{y = \pm 21}$

So, $x = \frac{2}{3}(\pm 21)$

$\boxed{x = \pm 14}$

Sol:

Price of one brick = Rs. 30

measurement of each = 25cm × 11.25 × 6cm

$= 1687.5\ cm^3$

the dimension = 18m × 6m × 22.5cm

= 1800cm × 600cm × 22.5cm

= 24300,000

To count total number of bricks required $= \frac{24,300,000}{1687.5}$

$= 14,400$

Now total cost for wall $= 30 \times 14,400$

Total cost $= 432,000$

(0.7)

(a)

Suppose number of men in bus when it starts from Islamabad city $= x$

According to given condition then number of women $= \frac{1}{2}x$.

In Rawipindi; after leaving ten men, the no. of men in the bus $= (x-10)$

and 5 women entered so no. of women $= \frac{1}{2}x+5$

Apply given condition.

$$x-10 = \frac{1}{2}x+5$$

M T W T F S

$$x - \frac{1}{2}x = 5 + 10$$

$$\frac{1}{2}x = 15$$

$$x = 15 \times 2$$

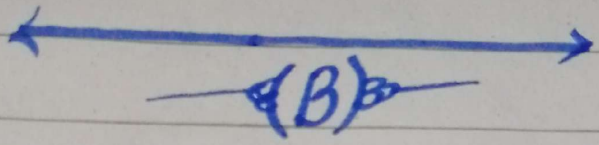
$$\boxed{x = 30}$$

So, in beginning no. of men = 30

and no. of women = 15

The total no. of men and women = 30 + 15

= 45 ✓ 5

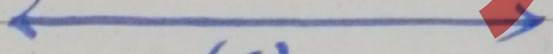


(B)

11 5 14 23 15 15 4
KENWOOD ⇒ RRGWICL
18 18 7 23 9 3 12

Generated code:

16 1 14 1 19 15 19 9 3
PANASONIC ⇒ RQLFSNYLY ✗



(C)

let first no. x and second is y.

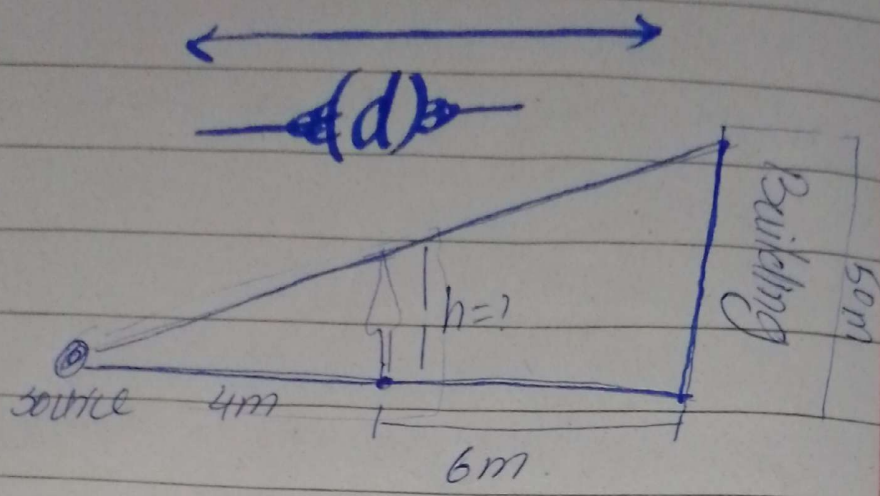
$$40\%\ x = \frac{2}{3}y$$

$$2\frac{40}{100}x = \frac{2}{3}y$$

$$\frac{2}{5}$$

$$\frac{2}{5}x = \frac{2}{3}y$$

$$\Rightarrow \boxed{\frac{x}{y} = \frac{5}{3}}$$



By the congureney theorem of triangles:

$$\frac{\text{altitud}}{\text{base}}\Delta = \frac{\text{altitude}}{\text{base}}\Delta'$$

base for small triangle = 4m

base for large triangle = (4+6)m

= 10m.

Now

$$\frac{h}{4} = \frac{50}{10}$$

$$h = 5 \times 4$$

$$\boxed{h = 20m}$$

→ height of tree = 20m.

Q.8)

a) total length of Area covered by rows
$= (10 \times 2) + 2 = 22m$.

total length of Area covered by colums $= (12 \times 2) + 2 = 26m$.

Thus length would be = 26m

b)

A, B, C, D, E sitting on bench.

First condition:

if B A D C E

then B is on the left and

if E B A D C

then E is on the left.

Second condition:

the arrangement is

B E A C D

and A is sitting in the middle.

c) let no. is x.

$\frac{1}{3}(\frac{1}{4})x = 15$

$\frac{1}{12}x = 15$

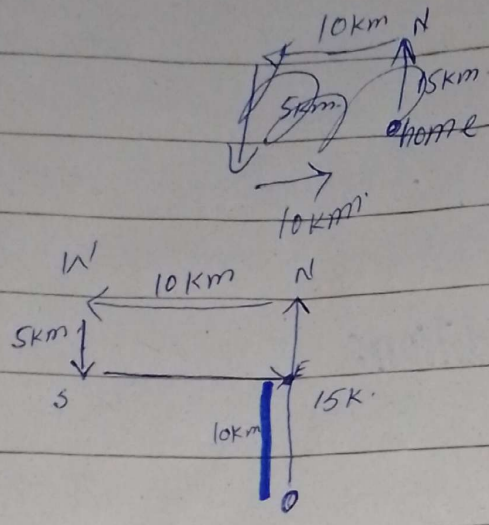
$\Rightarrow \frac{3}{10} \times \frac{1}{12}x = \frac{3}{10} \times 15$

M T W T F S

$$\frac{3}{10}x = \frac{45}{10} \times 12$$

$$\frac{3}{10}x = 54$$

d)



1. He is in North of his home.
2. He is 10km far from his house.
3). He had travelled

15km+10km+5km+10km

= 40km.