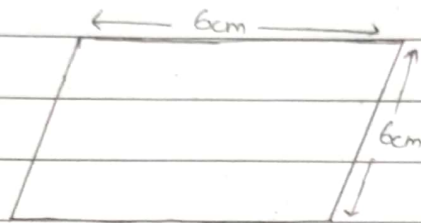


GSA - 4.

Q No. 1.

(C) PERIMETER OF RHOMBUS



$$\begin{aligned}
 \text{Perimeter of Rhombus} &= 4a \\
 (\because a &= \text{length of sides}) \\
 &= 4(6\text{cm}) \\
 &= 24\text{cm}
 \end{aligned}$$

Hence, perimeter of rhombus is 24cm

(D) Find the next term

6, 17, 39, 72, \_\_\_\_\_

Each number has a difference of 11 times  
i.e., 11, 22, 33 and 44. So the last number is  
116.

(B) TIME AFTER SIGNALS BLINK TOGETHER.

DATA

First traffic signals blink after = 6sec

Second traffic signal blink after = 8sec

Time after both signals blink together = ?

Solution:

To find the time after they blink together,

DATE \_\_\_/\_\_\_/\_\_\_

L.C.M of 6 and 8 is needed.

2	6, 8
<del>3</del>	3, 4
2	<del>3</del> , 2
3	3, 1
	<hr/>
	1, 1

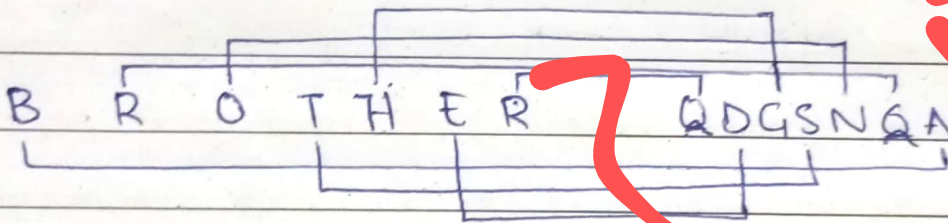
$$\begin{aligned} \text{L.C.M} &= 2 \times 2 \times 2 \times 3 \\ &= 24 \text{ sec} \end{aligned}$$

Hence, both signals will blink together after  
24 seconds

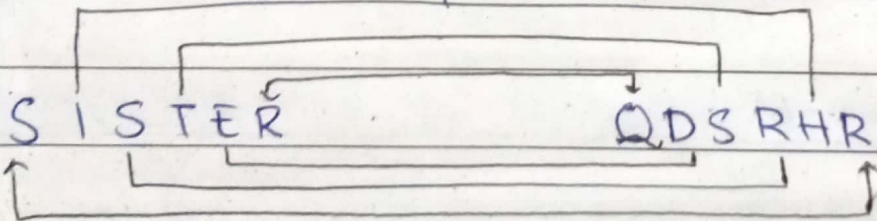
DATE: \_\_\_/\_\_\_/\_\_\_

Q.No.2.

(A) The first letter of word "BROTHER" is compared to the last letter of word/code "QDGSNQA" and last letter with the first word. The compared letters of "BROTHER" are always the next word letters of "QDGSNQA" in opposite order i.e. from last to first letter.



The code of word "SISTER" would be



Hence, "SISTER" would be written as "QDSRHR"

## (D) COST TO FILL THE LOUNGE

Data-

Tile shape is right-triangle-

Base of right triangle tile = 4cm

Height  
~~Hypotenuse~~ of right triangle tile = 12cm

Cost of one tile = Rs. 15

Lounge length = 8 meters =  $8 \times 100 = 800$  cm

Lounge width = 6 meters =  $6 \times 100 = 600$  cm

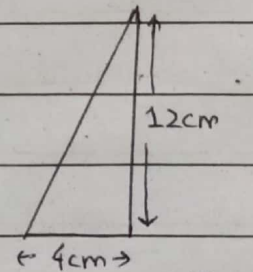
Cost to fill the lounge with tiles = ?

Solution:

Area of triangle =  $\frac{1}{2} (b \times h)$   
tile

$$= \frac{1}{2} (4 \times 12)$$

$$= 24 \text{ cm}^2$$



Tile

Area of lounge =  $(l \times b)$

$$= 800 \times 600$$

$$= 480000 \text{ cm}^2$$

$$\text{No. of tile required in the lounge} = \frac{480000}{24}$$

$$= 20,000$$

$$\text{Cost of tiles to fill lounge} = \text{cost of one tile} \times \text{no. of tiles required}$$

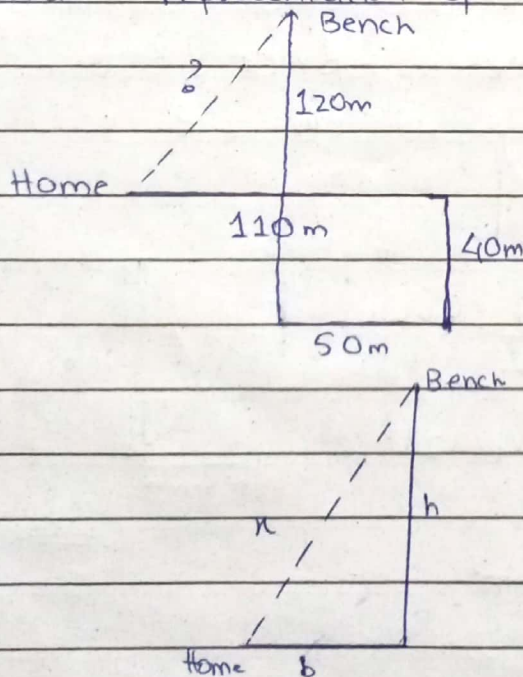
$$= 15 \times 20,000$$

$$= \text{Rs. } 300,000$$

Hence, the cost of tiles to fill the lounge is Rs- 300,000.

### (B) DISTANCE BETWEEN BENCH AND STARTING POINT

Pictorial representation of walk -



Data:

$$\begin{aligned} \text{Height of right triangle} &= 120 - 40 \\ &= 80 \text{ m} \end{aligned}$$

Base of right triangle =  $110 - 50$  m  
= 60 m

Perpendicular of right triangle =  $x$ ?  
(Distance from bench to home)

Solution:

Let suppose The distance from home to bench is  $x$

Using Pythagoras theorem to find  $x$

$$(\text{Perpendicular})^2 = (\text{Height})^2 + (\text{base})^2$$

$$x^2 = (80)^2 + (60)^2$$

$$x^2 = 6400 + 3600$$

$$\sqrt{x^2} = \sqrt{10,000}$$

$$x = 100 \text{ m}$$

Hence, the distance between the Aslam's house and bench is 100m

(c) Let the weight of Shehbaz is  $x$ , so that the weight of others will be -

$$\text{Shehbaz} = x$$

$$\text{Nasir weighs half as much as Shehbaz} = \frac{1}{2}x$$

$$\text{Akbar weighs half as much as Nasir} = \frac{1}{2} \left( \frac{1}{2}x \right)$$

$$= \frac{1}{4}x$$

$$\text{Ali weighs 5 times as much as Akbar} = 5 \left( \frac{1}{4} x \right)$$

$$= \frac{5x}{4}$$

$$\text{Ahmad weighs 3 times as much as Ali} = 3 \left( \frac{5}{4} x \right)$$

$$= \frac{15x}{4}$$

With common denominator 4, the above weights will be

$$\text{Shehbaz} = \frac{4x}{4}$$

$$\text{Nasir} = \frac{2}{4} \left( \frac{1}{2} x \right) = \frac{2x}{4}$$

$$\text{Akbar} = \frac{4}{4} \left( \frac{1}{4} x \right) = \frac{x}{4}$$

$$\text{Ali} = \frac{4}{4} \left( \frac{5}{4} \right) = \frac{5x}{4}$$

$$\text{Ahmad} = \frac{4}{4} \left( \frac{15}{4} x \right) = \frac{15x}{4}$$

(i) Who is the heaviest?

Ahmad is the heaviest i.e.  $\frac{15x}{4}$

ii- Who is the lightest?

Akbar is the lightest in weight i.e.  $\frac{x}{4}$

(iii) Shehbaz is lighter than which two students?

Shehbaz is lighter than Ahmed and Ali in

weight

(iv) Shehbaz is heavier than which of two students?

Shehbaz is heavier than weight than Nasir and Akbar

(v) Show decending order of weights of student-

$$\frac{15x}{4}, \frac{5x}{4}, \frac{4x}{4}, \frac{2x}{4}, \frac{x}{4}$$

Ahmed, Ali, Shehbaz, Nasir, Ali