

(GSA)

Q#2:

a) Soln)

BROTHER is written as QDGSNOA

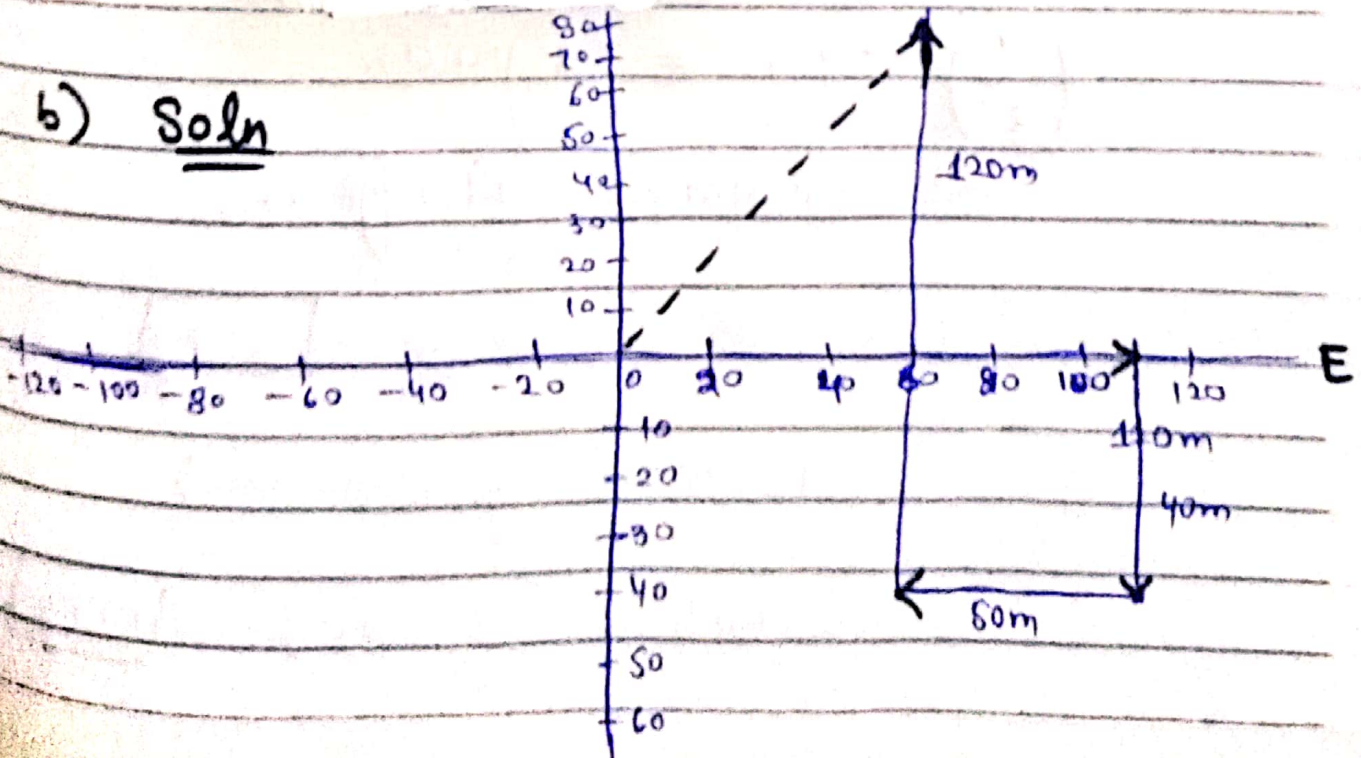
Observing the pattern, it can be said that pattern is in reverse order with -1 .

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X	Y
Z				

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X	Y
Z				

\therefore SISTER will be decoded as QDSRHR

b) Soln



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

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

$$\text{Hyp} = \sqrt{(60)^2 + (80)^2}$$

$$\text{Hyp} = \sqrt{3600 + 6400}$$

$$\text{Hyp} = \sqrt{10000}$$

$$\text{Hyp} = 100 \text{ meters}$$

\therefore Bench is located 100m away from his house.

c) Soln According to given data

$$\text{Ahmed} = 3(\text{Ali})$$

$$\text{Ali} = 5(\text{Akbar})$$

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

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

Let Shehbaz weight = 20 kg

$$\text{Nasir} = \frac{1}{2} (\text{Shehbaz})$$

$$\text{Nasir} = \frac{1}{2} (20) = \span style="border: 1px solid black; padding: 2px;">10 kg$$

$$\text{Akbar} = \frac{1}{2} (\text{Nasir})$$

$$= \frac{1}{2} (10)$$

$$\text{Akbar} = \boxed{5 \text{ kg}}$$

$$\text{Ahmad} = 3 (\text{Ali})$$

$$\text{Ali} = 5 (\text{Akbar})$$

$$\text{Ali} = 5 (5)$$
$$\text{Ali} = \boxed{25 \text{ kg}}$$

$$\therefore \text{Ahmad} = 3 (25)$$

$$\text{Ahmad} = \boxed{75 \text{ kg}}$$

i) The heaviest = Ahmad

ii) The lightest = Akbar

iii) Shahbaz is lighter = Ahmad & Ali

iv) Shahbaz is heavier = Akbar & Nasir

d) Soln =

According to given data

Area of the lounge = Area of Rectangle

$$\therefore \text{Area of Rectangle} = \text{length} \times \text{width}$$
$$= 8 \text{ m} \times 6 \text{ m}$$
$$= 48 \text{ m}^2$$

Area of tiles = Area of right triangle

$$\therefore \text{Area of right triangle} = \frac{1}{2} \times (\text{length} \times \text{width})$$

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

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

As Area of tiles is 24 cm^2 so
convert area of lounge into
 cm^2

$$\text{Area of lounge in cm}^2 = 48 \times 1000^2$$

$$= 480,000 \text{ cm}^2$$

$$\text{Tiles required for lounge} = \frac{480,000}{24}$$

$$= 20,000 \text{ tiles}$$

$$\text{Cost of one tile} = \text{Rs } 15$$

$$\text{Cost to fill the lounge} = 20,000 \times 15$$

$$= \boxed{300,000 \text{ rupees}}$$

Q# 01 =

B) Soln:

According to given data
signals blink together
one blinks after = 6 sec
other blinks after = 8 sec

To find out

when will those signals
blink together again

L.C.M

$$\begin{array}{r|l} 2 & 8, 6 \\ \hline 2 & 4, 3 \\ \hline & 2, 3 \end{array}$$

$$2 \times 2 \times 2 \times 3 = 24 \text{ sec}$$

The signals will blink together again
for 24 sec.

C) Soln:

Side of Rhombus = 6 cm
 \therefore Perimeter of Rhombus = $4(l)$
= $4(6)$
= 24 cm

d) $6, 17, 39, 72, \frac{?}{?}$

Soln.

To find out series pattern

$$17 - 6 = 11$$

$$39 - 17 = 22$$

$$72 - 39 = 33$$

\therefore multiples of 11 are subtracted from every forthcoming number in series

So, we will add 44 in 72

$$\Rightarrow 72 + 44 = 116$$

So, the number is 116

a)

let number of boys = x
let number of girls = y
girls showed at party = $y + 15$

Ratio = 4:5

Extra girls with ratio = 1:5

Previously = 60 : 60

After new girls = 60 : 75

= 4:5

\therefore school invited 120 people