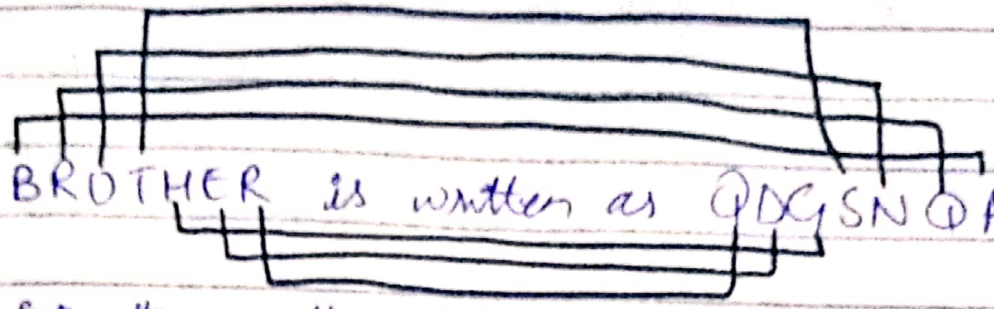
(GSA)

Q#2:

a) Soln)



BROTHER is written as QDCGSNQA

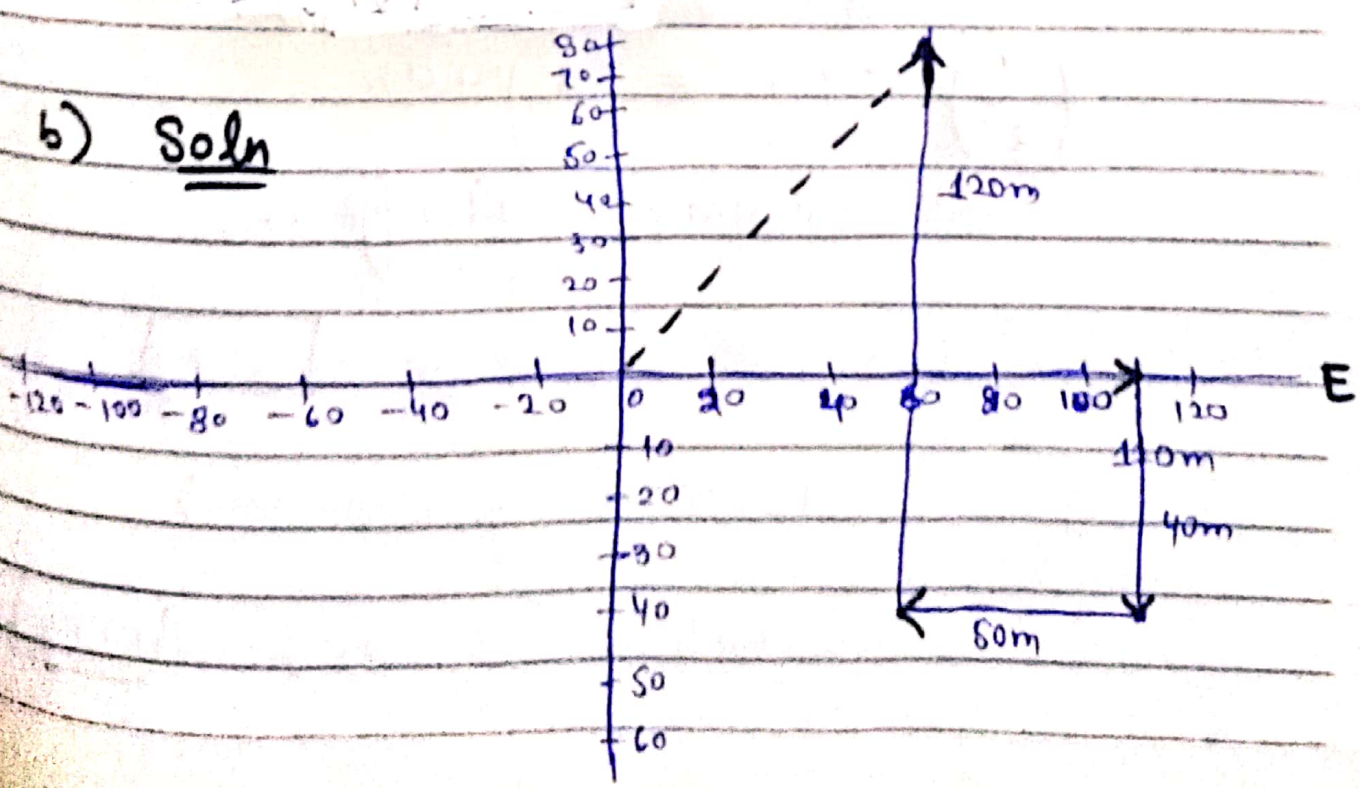
Observing the pattern it can be said that pattern is in reverse order with -1.

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

∴ SISTER will be decoded as QDSRHR

b) Soln



$\because \quad (Hyp)^2 = (Base)^2 + (Perp)^2$

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

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

$Hyp = \sqrt{3600 + 6400}$

$Hyp = \sqrt{10000}$

$Hyp = 100 \text{ meters}$

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

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c) **Soln** According to given data

Ahmed = 3 (Ali)

Ali = 5 (Akbar)

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

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

Let Shehbaz weight = **20 kg**

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

$Nasir = \frac{1}{2}(20) =$ **10 kg**

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

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

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

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

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

$$= 5(5)$$

$$\text{Ali} = \boxed{25\text{ kg}}$$

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

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

i) The heaviest = Ahmad.
ii) The Lightest = Akbar
iii) Shahbaz is lighter = Ahmad & Ali
iv) Shahbaz is heavier = Akbar & Nasir.

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d) **Soln:**

According to given data

Area of the lounge = Area of Rectangle

$\therefore$ Area of Rectangle = length × width

$= 8\text{m} \times 6\text{m}$

$= 48\text{m}^2$

Area of tiles = Area of right triangle

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

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

$= 24\,cm^2$

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

Area of lounge in cm^2 $= 48 \times 100)^2$

$= 480,000\,cm^2$

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

$= 20,000$ tiles

Cost of one tile $=$ RS 15

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

$=$ 300,000 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

2	8, 6
2	4, 3
	2, 3

$2 \times 2 \times 2 \times 3 = 24$ sec

The signals will blink together again
for **24 sec.**

C) Soln:

Side of Rhombus = 6cm
∴ Perimeter of Rhombus = 4(l)
= 4(6)
= **24 cm**

d) 6, 17, 39, 72, ?

Soln.

To find out series pattern

$17 - 6 = 11$

$39 - 17 = 22$

$72 - 39 = 33$

∵ 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**

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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 $= 60 : 75$

$= 4 : 5$

∵ School invited 120 people