

Q2

(Q) In a certain ... in the same code?

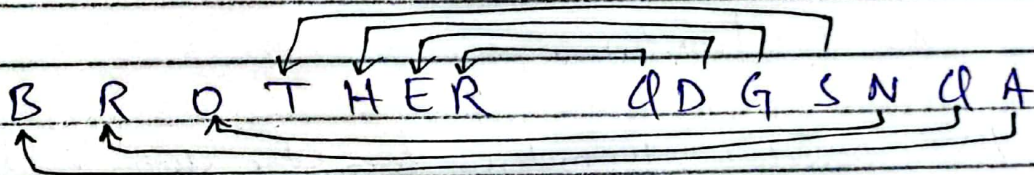
Answer

Given

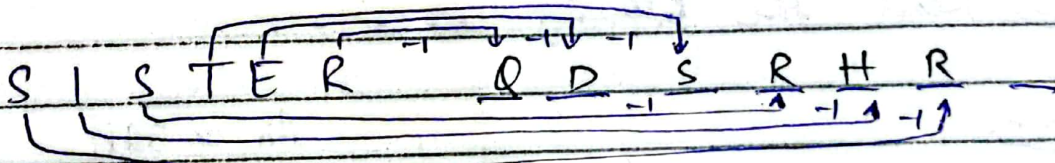
BROTHER
QDGSNQA

A ¹	B ²	C ³	D ⁴	E ⁵	F ⁶
G ⁷	H ⁸	I ⁹	J ¹⁰	K ¹¹	L ¹²
M ¹³	N ¹⁴	O ¹⁵	P ¹⁶	Q ¹⁷	R ¹⁸
S ¹⁹	T ²⁰	U ²¹	V ²²	W ²³	X ²⁴
		Y ²⁵	Z ²⁶		

B ²	R ¹⁸	O ¹⁵	T ²⁰	H ⁸	E ⁵	R ¹⁸
+15	+12	+18	-8	+1	+16	+12
Q	D	G	S	N	Q	A
17	4	7	19	14	17	1



By following the same pattern to decode the required word

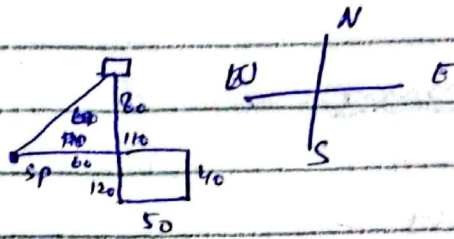


In the same language SISTER can be written as QDSRHR



(B) For his morning walk ----- starting point.

Ans



How far travelled

We know that

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

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

$$= 6400 + 3600$$

$$x^2 = 10000$$

$$\boxed{x = 100} \text{ meters.}$$

He travelled 100 meters from the starting point.

(C) Read the following -----

Ans

Let the weight of
Shehbaz = x .

then

$$\text{Shehbaz} = x$$

$$\text{Nasir} = 2x$$

$$\text{Akbar} = 2(2x) = 4x$$

$$\text{Ali} = 5(4x) = 20x$$

$$\text{Ahmed} = 3(\text{Ali}) = 3(20x) = 60x$$

$$\text{Ah} = 3\text{Ali}$$

$$\text{Ali} = 5\text{Ak}$$

$$2\text{Akbar} = \text{N}$$

$$2\text{N} = \text{Shehbaz}$$

(i) Ahmad is the heaviest among all.

(ii) Shahbaz is the lightest among all.

(iii) Shahbaz is

(C) Read the following.

Ans

Let the weight of
Shahbaz = x

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

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

$$2\text{Akbar} = \text{Nasir}$$

$$2\text{Nasir} = \text{Shahbaz}$$

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

$$\text{Akbar weighs half as much as Nasir} = \frac{1}{2}\left(\frac{x}{2}\right) = \frac{x}{4}$$

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

$$\text{Ahmad weighs thrice as much as Ali} = 3\left(\frac{5x}{4}\right) = \frac{15x}{4}$$

(i) Ahmad is the heaviest among them.

(ii) Akbar is the lightest among them because of largest denominator.

(iii) Shahbaz is lighter than Ahmad and Ali

(iv) Shahbaz is heavier than Akbar and Nasir

(v)

Ahmad	Ali	Shahbaz	Nasir	Akbar
$\frac{15x}{4}$	$\frac{5x}{4}$	x	$\frac{x}{2}$	$\frac{x}{4}$

(D) Aslam is willing with these tiles?

Ans



$$\begin{aligned} \text{Lounge Area} &= 8\text{m} \times 6\text{m} \\ &= 48\text{m}^2 = 480000\text{cm}^2 \end{aligned}$$

How much cost = ?

$$\text{Tiles size} = 12\text{cm} \times 4\text{cm}$$

$$\text{Tiles area} = 12\text{cm} \times 4\text{cm} = 48\text{cm}^2$$

$$\text{Triangle tiles} = \frac{1}{2} (48\text{cm}^2)$$

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

$$\text{Tiles required in Nos. for lounge} = \frac{\text{Lounge Area}}{\text{Area of tiles}}$$

$$= \frac{480000\text{cm}^2}{24\text{cm}^2}$$

$$\text{No. of tiles} = 20000$$

$$\text{Price of one tiles} = \text{Rs } 15$$

$$\text{Price of required tiles} = 15 \times 20000$$

$$= \text{Rs } 30000/-$$

Qno. 1

(*) (D) Find the next term...

Ans

6, 17, 39, 72, _____ ?

In the given series there is a difference of multiple of "11"
So the next number will be

$$72 + 44 = 116 \quad \underline{\text{Ans}}$$

Rough	
17	
6	
"	
39	
17	
<hr/>	
22	
72	
39	
<hr/>	
33	

(C)

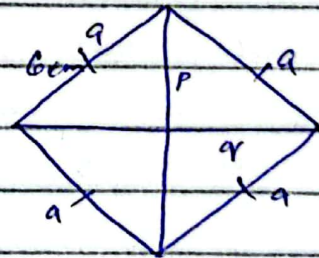
Ans Rhombus:

A ~~star~~ Rhombus has all sides congruent and opposite sides are parallel to each other so

$$P = 4a$$

$$P = 4(\text{cm})$$

$$P = 24 \text{ cm}$$



←—————→

(B)

Ans

Let the signals A, B.

A blinks = 6s.

B blinks = 8s.

For the least common
time of the signals
to blink together calculated
by L.C.M.

$$\begin{array}{r|l} 2 & 6, 8 \\ \hline 2 & 3, 4 \\ 2 & 3, 2 \\ \hline 3 & 3, 1 \\ \hline & 1, 1 \end{array}$$

$$2 \times 2 \times 2 \times 3 = 24s.$$

Signals will blink together after 24s.

(A)

Sol.

Let the initial No. of boys & girls
invited to the party = x

After extra "15" girls = $x + 15$

Given ratio of boys & girls = 4:5.
after adding 15 girls.

According to given situation equation
can be written as

$$4 : 5 = \frac{x}{x+15}$$

$$\frac{4}{5} = \frac{x}{x+15}$$

$$4(x+15) = 5x$$

$$4x + 60 = 5x$$

$$\boxed{60 = x}$$

original No. of boys & girls

x ←