

GSA-2

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A)

a) 3, 9, 21, 39, 63, 93

b) 1, 5, 11, 21, 37, 61

c) 5, 16, 29, 46, 65, 88, 117

d) 1, 3, 4, 9, 27, 36, 729, 972

B)

K E N W O O D

R R G W I C L

to be written as the following:

O O D K E N W

R R G W I C L

P A N A S O N I C

G R C E N

c)

Bench Order

Left

Right

E B A C D

Explanation: The question clearly states that E should be sitting on the left side of bench. Additionally, it states that A is to the right of B and E. Also, E is not sitting

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with D. Hence, A and E can only sit on the far left side of the bench. Since A is sitting to the right of B and E, and A and B must sit next to each other, we can say B sits between A and E. Therefore, A sits in the middle of the Bench. Since A and C are sitting together, C must sit on the right side of A. This leaves D in the far left on right side of the bench.

D) A → B's father

B → A's son

C's husband

C → B's wife

D's sister

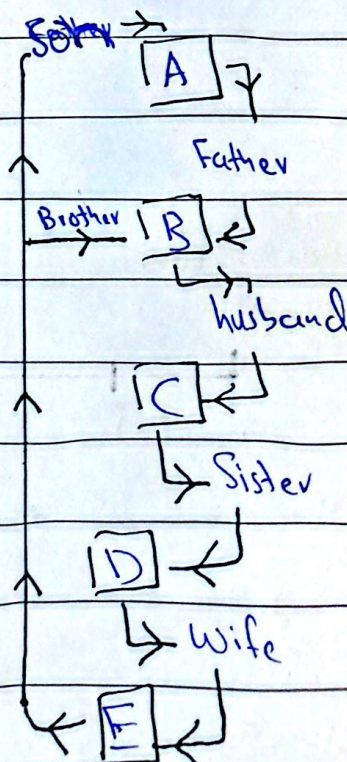
D → C's sister

→ E's wife

E → B's brother

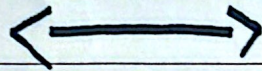
D → A's ?

Chart



Explanation.

D is A's daughter in law. This is because D is married to E who is the brother of B. Since B and E are brothers, A is also E's father. This makes E's wife D the daughter in law of A.



Q2-

A) Let father be 'x'
Let Rashid be 'y'

$$x - 0 \Rightarrow x = 3y$$

$$x - 8 \Rightarrow x + 8 = 2.5(y + 8)$$

$$x - 16 \Rightarrow ?$$

Substitution method to find 'y'

$$x = 3y \quad - (1)$$

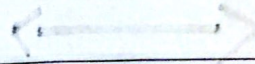
$$x+8 = 2.5(y+8) \quad - (2)$$

Substitute (1) into (2)

$$3y+8 = 2.5y+20$$

$$0.5y = 12$$

$$y = \frac{12}{0.5}$$



$$y = 24$$

$$\begin{aligned} \text{Rashid's age after 16 years} &= 24 + 16 \\ &= 40 \text{ yrs} \end{aligned}$$

$$\begin{aligned} \text{Father's age at yr 0} &= 24 \times 3 \\ &= 72 \end{aligned}$$

$$\begin{aligned} \text{Father's age at yr-16} &= 72 + 16 \\ &= 88 \end{aligned}$$

$$\begin{aligned} \text{Father's age the times of Rashid at year 16} \\ &= \frac{88}{40} \end{aligned}$$

$$= 2.2 \text{ times}$$

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After 16 years, Father's age will be 2.2 times that of Rashid.

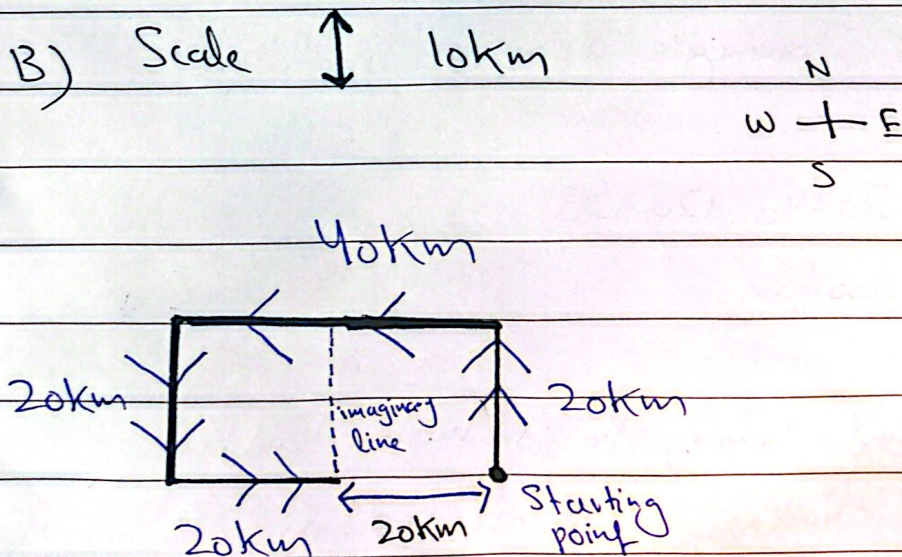
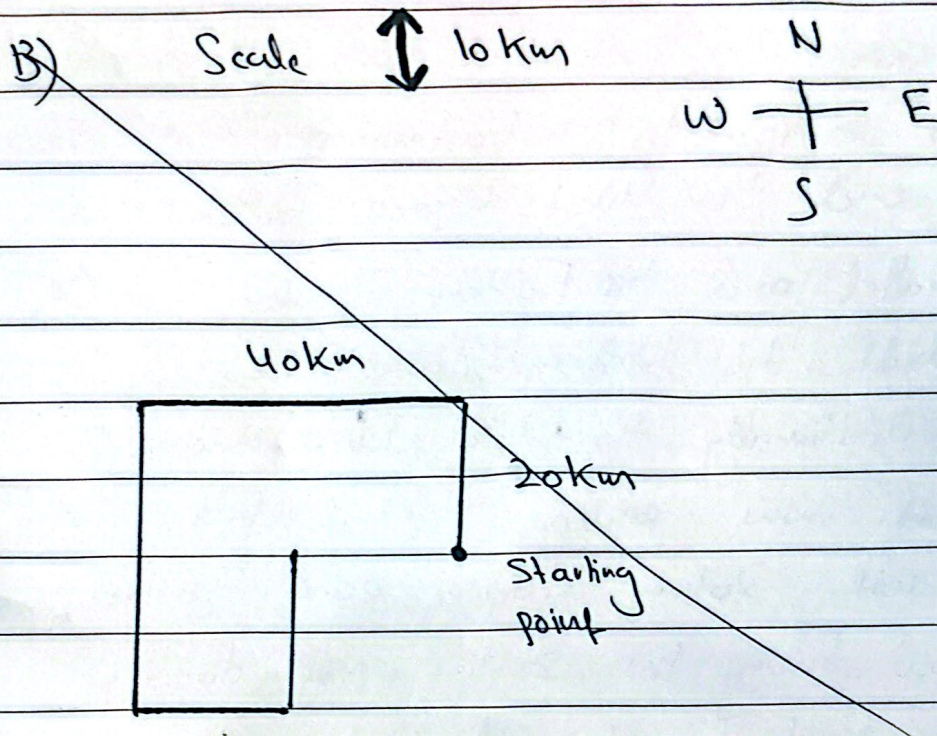


Figure 1

i) According to Figure 1, the distance of Saleem after travel from starting point is 20km. This is because if you observe the path he took, as illustrated in figure 1, his Eastwards Journey and his West Wards Journey are parallel and his Eastern Journey was half his Western Journey of 40km. Additionally, the total Journey towards the North was equal to that of the South with 20km distance each. Therefore, he was facing his starting point directly on the Eastern side at 20km.

ii) The total Journey's distance is as follow:

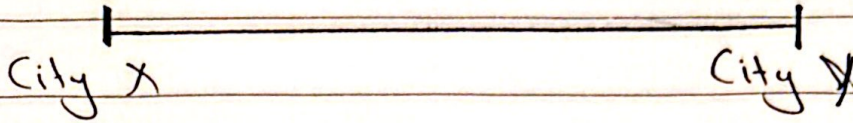
$$= 20 + 40 + 20 + 20$$

$$= 100 \text{ km}$$

iii) As mentioned before, he is moving Eastwards

iv) He is 90° from his initial position

C) $\rightarrow$ let x be the number of men



Number of women = $0.5x$

number of men = x

Number of women = $0.5x + 5$

Number of men = $x - 10$

City Y

$$0.5x + 5 = x - 10$$

$$10 + 5 = x - 0.5x$$

$$15 = 0.5x$$

$$x = 30$$

$$\begin{aligned} \text{Total passengers initially} &= x + 0.5x \\ &= 30 + 0.5(30) \\ &= 45 \end{aligned}$$

Total passenger who entered the bus in the beginning were 45

D) Triangle always has three sides
 $= 8$ smaller triangles + 8 small triangles + 4 smaller triangles + 4 big triangles + 4 bigger triangles
 $= 28$ triangles