Q No. 1

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

3×1 3×3 3×7 3×13 3×21 3×31

2 4 6 8 10

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

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

d) 1, 3, 4, 9, 27, 36, 243, 829, 972

1+3 9+27 243+829

Part (B)

KENWOOD → RRGWICL (+7 +13 −7 0 +6 −11 +8)

PANASONIC

W N G A Y D V

A, B, C, D, E, F, G

H, I, J, K, L, M, N

O, P, Q, R, S, T, U

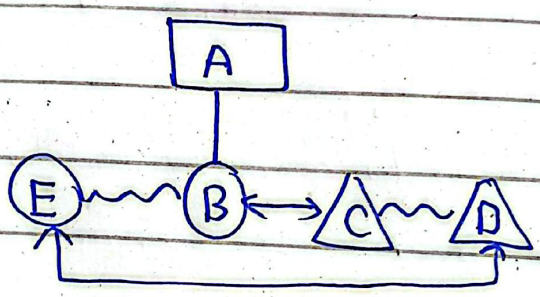
V, W, X, Y, Z

Part C

E, B, A, C, D

A is sitting in the center of the bench between B and C

Part D



D is the daughter in law of A

Q No. 2

Let age of Rashid = x

Father's age = $3x$

After 8 years =

Rashid = $x + 8$

Fathe = $3x + 8$

Q No. 2

Let age of Rashid = x

Father's age = $3x$.

After 8 years

Rashid = $x+8$

Father = $3x+8$

Father's age is $2\frac{1}{2}$ times the age of son

Fathers = $2\frac{1}{2}$ son's age

$$3x+8 = \frac{5}{2}(x+8)$$

$$6x+16 = 5x+40$$

$$x = 24 \text{ years}$$

$$\begin{array}{r} 3440 \\ -16 \\ \hline 24 \end{array}$$

Original age

Rashid = 24 years

Father = 72 years

8 years later

Rashid = $24+8 = 32$ years

Father = $72+8 = 80$ years

8 years further

Rashid = 32 + 8 = 40 years

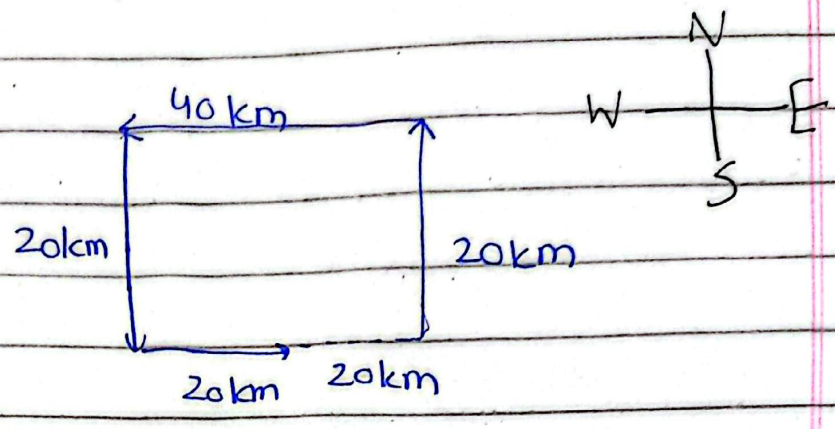
Father = 80 + 8 = 88 years

22
44
88
40
20
10

$= \frac{22}{10} = 2.2$

Father is 2.2 times older than the son

Part (B)



(i) He is 20 km away from starting point

(ii) Total path = 20 + 40 + 20 + 20
= 100 km

(iii) He is moving eastwards

(iv) He is west to the starting point

Part (C)

At city X

men = m

women = $\frac{1}{2}$m

At city Y

men = m − 10

women = $\frac{1}{2}$m + 5

According to the statement at city Y

men = women

$m - 10 = \frac{1}{2}m + 5$

$m - 10 = \frac{m + 10}{2}$

$2m - 20 = m + 10$

$2m - m = 10 + 20$

$m = 30$ men

Putting the value of m in the values of city X

men $= 30$

women $= \frac{1}{2} \times 30$

$= 15$ women

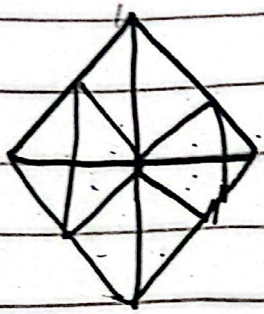
In the beginning

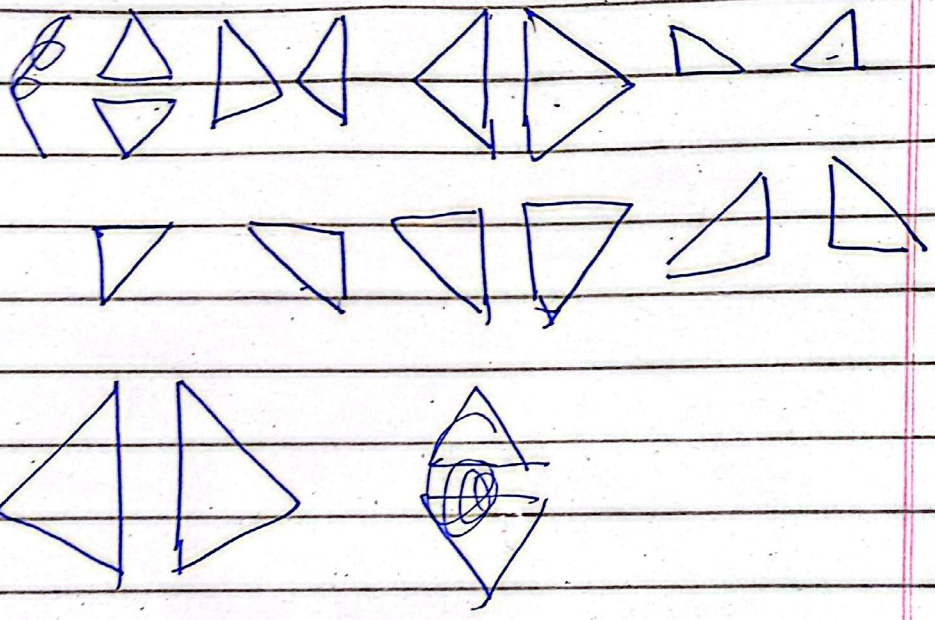
Total passengers $= 30 + 15$

$= 45$ passengers

45 passengers entered the bus in the beginning.

Part (D)





There are 24 triangles in this triangle