

CTSA (Test 2)

Date 20
M T W T F S S

~ (Q#01) ~

A) Find the missing term

(a) 3, 9, 21, 39, 63, ...

3, 9, 21, 39, 63, 93
x3

$$3 \times 1 = 3$$

$$3 \times 3 = 9$$

$$3 \times 7 = 21$$

$$3 \times 13 = 39$$

$$3 \times 21 = 63$$

$$3 \times 31 = 93$$

1, 3, 7, 13, 21, 31
+2 +4 +6 +8 +10

So, 93 is the missing number

(b) 1, 5, 11, 21, 37, —

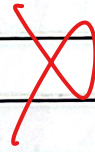
1, 5, 11, 21, 37, 61
+4 +6 10 16 24
+2 +4 +6 +8

So, answer is 61.

(c) 5, 16, 29, 46, 65, 88, —

5, 16, 29, 46, 65, 88, —

(d) 1, 3, 4, 9, 27, 36, 243, —, 972



(B) In a code language, KENWOOD is written as RRGWICL then in same language the word PANASONIC is written as ?

K E N W O O D → R R G W I C L

P A N A S O N I C → ~~R~~ K A I Y Q

K is shifted by 1 (alphabet).

E is shifted backward by 2 alphabets

N is shifted backward by 5 alphabets

W remains the same

O shifted backward by 8 alphabets

O shifted forward by +3 alphabets

(C) A, B, C, D, E are sitting on a bench. A is sitting next to B, C is sitting next to D

1st statement : A is sitting next to B
 AB or BA

2nd statement : C is sitting next to D
 DC or CD

3rd statement : D is not sitting with E (left)

4th statement : C is 2nd position from right

5th statement : A is to the right of B & E
 BEA or EBA

6th statement : AC are sitting together

1 2 3 4 5
 E B A C D

A is sitting in the middle

(D) A's son B is married with C whose sister D is married to E, the brother of B. How is D related to A?

A's son B

A
 ↓
 B⁺

= brother
 sister
 + husband
 wife

is Married with C

A
 ↓
 B⁺ + C⁻

whose sister D is married to E who is the brother of B

A
 ↓
 B⁺ + C⁻ = D⁻ + E⁺ = B⁺

As D is married to A's son F
So D is the daughter in law of A

~ (Question #2) ~

(A) Father is aged three times more than his son Rashid. After 8 years, he would be two ...

$$F = 3R \quad \text{--- (1)}$$

After 8 years,

$$F+8 = 2.5(R+8) \quad \text{--- (2)}$$

After further 8 years,

Father would how many times of his son's age?

Put the value of eq (1) in (2)

$$3R + 8 = 2.5R + 20$$

$$0.5R = 20 - 8$$

$$0.5R = 12$$

$$R = \frac{12}{0.5} = 24$$

Put in eq (1)

$$F = 3(24) = 72$$

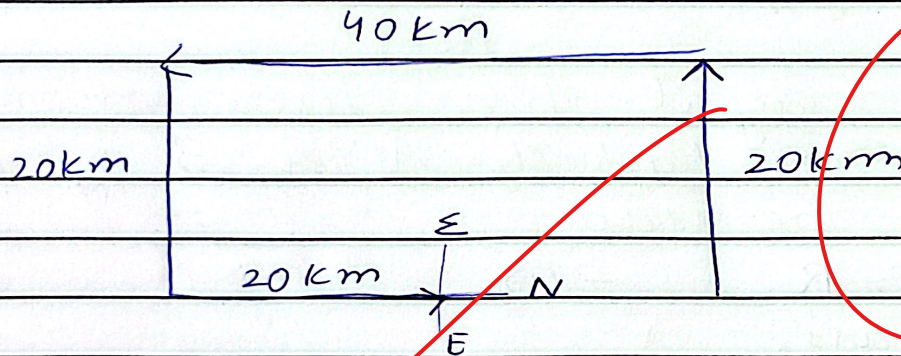
After 8 years,

$$R = 24 + 8 = 32$$

$$F = 72 + 8 = 80$$

So, Father will be 80 = 2.5 years older than his son 32 Rashid after 8 years year

(B) Saleem walks 20 km towards North. He turns left...



(a) He is 20 km away from the starting position.

(b) Total path travelled = 20 + 40 + 20 + 20

1 Total path travelled = 100 km

(c) He is moving toward North X

(d) He is in West from his initial position

(C) A bus starts from city X. The no.

City X $\rightarrow$ ~~M~~ = ~~W/2~~ $W = M/2 \Rightarrow M = 2W$

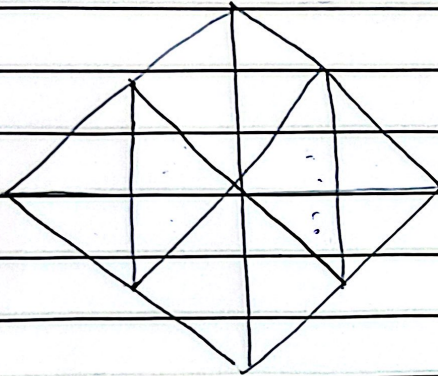
City Y $\rightarrow$ $M - 10$, $W + 5$

Now, $M - 10 = W + 5$

$$M - 10 = 2W + 5$$

$$M = 2W + 15$$

D) Total no. of triangles



$$2 + 2 + 4 + 6 + 6$$

20 triangle are
total in number

28 ✓