TCS NQT 2021 Reasoning

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(1) PICNIC → 16 9 3 14 9 3
EGPAKN → 5 7 16 1 11 14

ZEBRA
GPDCB

Reverse this

C I N C I P
3 9 14 3 9 16

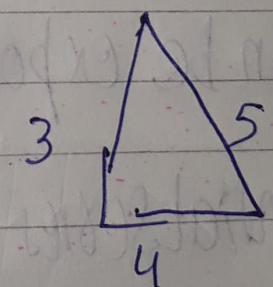
+2 −2 +2 −2 +2 −2

N O E G I P
+2 −2 +2 −2 +2 −2

P M G E K N → Answer

(2) (3,4,5) are Phythagorean triples.

$5^2 = 3^2 + 4^2$



$5^2 + 12^2 = 13^2$

$25 + 144 = 169$

tip → Armstrong number ⇒ 153 ⇒ $1^3 + 5^3 + 3^3$

fibonocci series

(3) $+ \rightarrow \times$

$\div \rightarrow /$

$\times \rightarrow -$

$/ \rightarrow \div$

$\frac{32}{16} \times (36+4) - 2$

$32 - 16 + (36/4) \times 2$

$\Rightarrow$ BODMAS.

$\Rightarrow 32 - 16 + (9) \times 2$

$\Rightarrow 32 - 16 + 18 \Rightarrow \boxed{34}$

(4) firstly see at series

24, 22, 46, 141, 568

1 24 95 427

if difference

It can be exponential based series.

exponential series are 5, 25, 125, 625.

$21 \times 1 + 1 \Rightarrow 22$

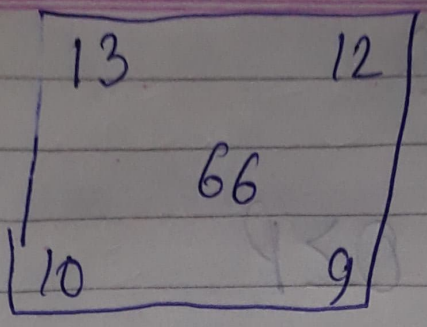
$22 \times 2 + 2 \Rightarrow 46$

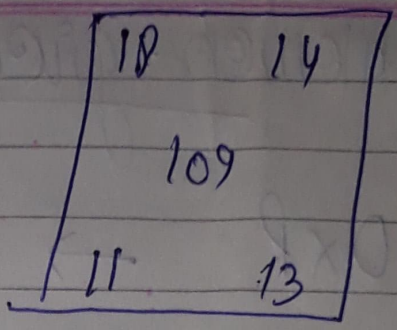
$46 \times 3 + 3 = 141$

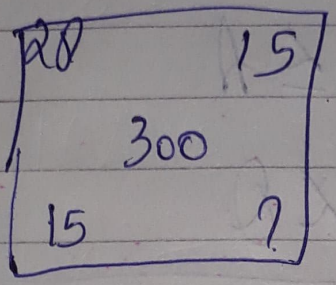
$141 \times 4 + 4 \Rightarrow 568$

$568 \times 5 + 5 = 2845$

(5)







→ $28 \times 15 = 420$

$15 \times 8 \Rightarrow 120$

300

$13 \times 12 \Rightarrow 156$

$10 \times 9 \Rightarrow 90$

66

$18 \times 14 \Rightarrow 252$

$11 \times 13 \Rightarrow 143$

109

8 is answer

(6) 'R + S' → $R > S$

'R − S' → $R \leq S$

'R ÷ S' → $R = S$

'R × S' → $R \geq S$

'R % S' → 'R < S'

Statement given

$O \times P \rightarrow O \geq P$

$P - A \rightarrow P \leq A$

$A \% O \rightarrow A < O$

$O > A \geq P \leq O$

Conclusion

(i) $O + P$

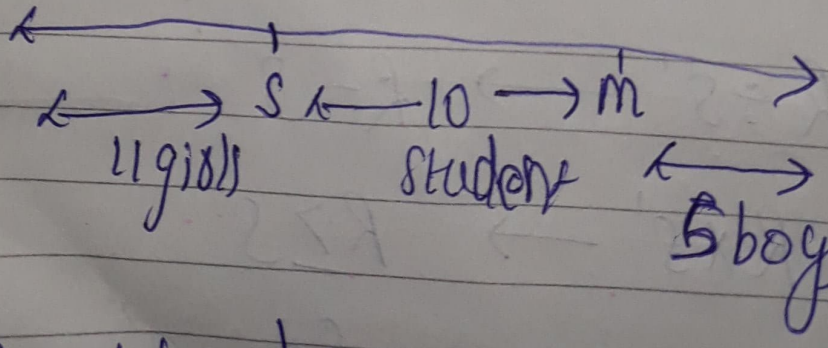
$O > P$ ✓

(ii) $O \div P \rightarrow O = P$

✗

↳ Only Conclusion I is true.

7)



So, Cannot be determined.

8) 343 → 73.

Cube is cut down into 7x7x7 — by by

64 = 43

We will see layerwise :-

There are 4 layers

layer 1 :

All cubes are painted.

No. of unpainted cubes = 0

2nd layer

Only side cubes are painted, internall 4 cubes (middle most) are not painted

No. of unpainted = 4

3rd layer → same as layer 2 = 4

4th layer → same as layer 1 = 0

Total unpainted Cubes = 8