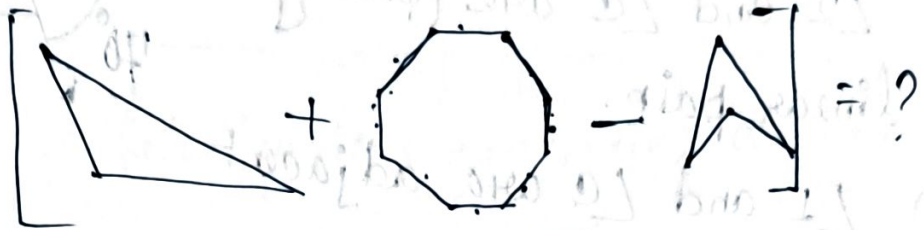


~~Choose~~

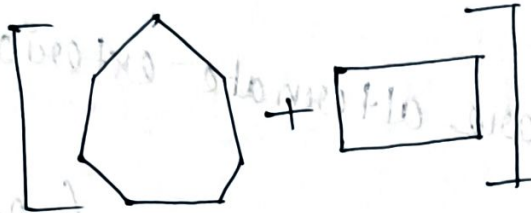
Reasoning based Problems

① Choose the connect option for the following questions:

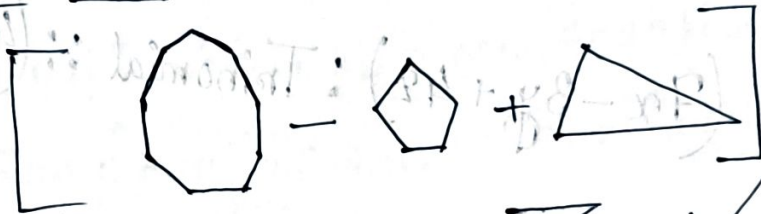
Number of sides



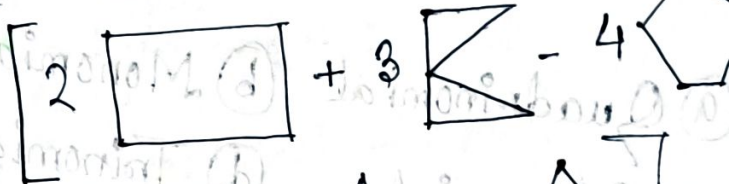
② No. of sides



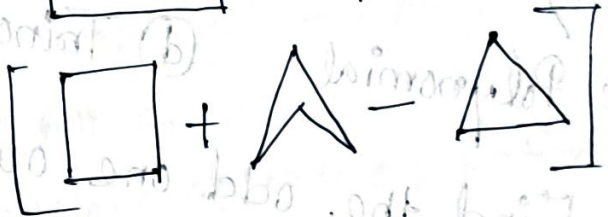
③ No. of sides



④ No. of sides of



⑤ No. of sides of



② Identify the correct option in place of question mark:

$-15, 5, -\frac{5}{3}, \frac{5}{9}, -\frac{5}{27}, \frac{5}{81}, -\frac{5}{243}$

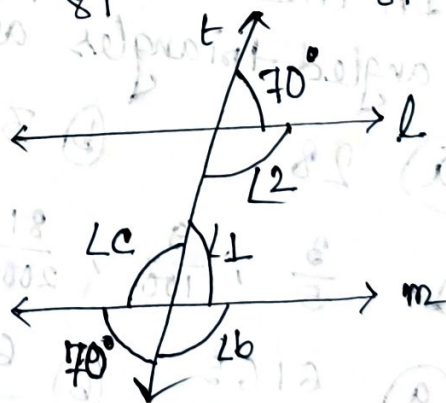
(a) $-\frac{5}{18}$

(b) $-\frac{5}{27}$

(c) $\frac{5}{81}$

(d) $-\frac{5}{81}$

③ If in adjoining figure, $l \parallel m$ and t transversal, then which of the following option is correct?

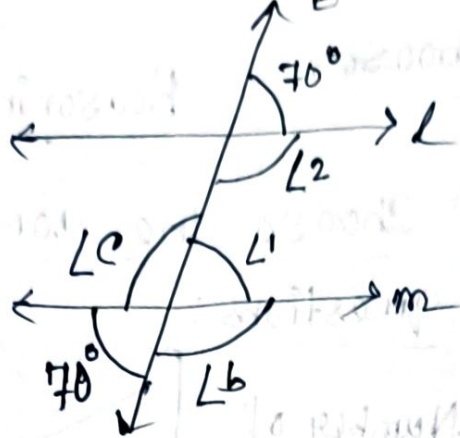


(a) $\angle 1$ and $\angle 6$ are corresponding angles.

(b) $\angle 2$ and $\angle c$ are forming linear pair.

(c) $\angle 1$ and $\angle c$ are adjacent angles.

(d) 70° & $\angle 6$ are alternate exterior angles.



(4) $(7x - 3y + 4z)$: Trinomial $:: (4x^2 - 7yz + 4zx - 3y^2 + 8xz - 12yz^2) :: ?$

(a) Quadrinomial (b) Monomial

(c) Polynomial (d) Trinomial

(5) Find the odd one out -

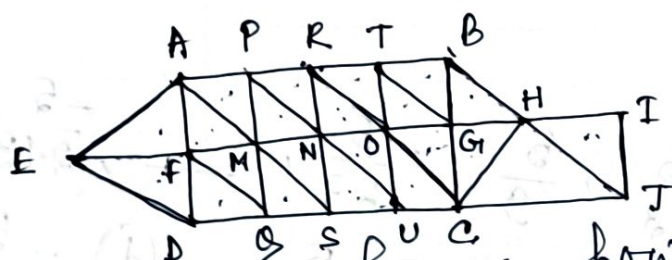
(a) $\frac{2}{3}$

(b) $\sqrt{\frac{49}{25}}$

(c) $1 + \frac{1}{1 + \frac{1}{\frac{1}{2} - \frac{1}{2}}}$

(d) $\sqrt{7}$

(6)



ABCD a rectangle
ABGF a rectangle
FDCG a rectangle

In the above figure, how many right angled triangles are there?

(a) 28

(b) 30

(c) 32

(d) 29

(7) $\frac{3}{5}, \frac{9}{100}, \frac{81}{2000}, \frac{?}{?}, \frac{43046721}{8,00,000}$

(a) $\frac{6165}{40,000}$

(b) $\frac{6651}{4000}$

(c) $\frac{6561}{8000}$

(d) $\frac{6561}{40,000}$

8) Which of the following represent alternate interior angles?

(a) H

(b) Z

(c) I

(d) K

9) Statement 1: All fractions are rational numbers.
Statement 2: Few rational numbers are fractions.

Then, which of the following is true?

(a) Numbers which are not fractions, are not rational numbers.

(b) Only rational numbers are fractions.

(c) Some of the fractions are not rational numbers.

(d) Few numbers are fractions as well as rational numbers.

10) Which of the following statements is true for algebraic expressions?

(a) Expression $\rightarrow$ Factors $\rightarrow$ Co-efficient $\rightarrow$ Terms

(b) Expression $\rightarrow$ Terms $\rightarrow$ Factors $\rightarrow$ Coefficient

(c) Expression $\rightarrow$ Co-efficient $\rightarrow$ Factors $\rightarrow$ Terms

(d) Factors $\rightarrow$ Terms $\rightarrow$ Co-efficient $\rightarrow$ Expression

- ⑪ A child is looking for his father. He went 90 m in the East before turning to his right. He went 20 m before turning to his right again to look for his father at his uncle's place 30 m from this point. His father was not there. From here he went 100 m to the North before meeting his father in a street. What is the smallest distance between the starting point and his father's position?

(a) 80 m (b) 100 m (c) 140 m (d) 260 m

- ⑫ A direction pole was on the crossing. Due to an accident, the pole turned in such a manner, that the pointer which was showing East, started showing South. One traveller went to the wrong direction thinking it to be West. In what direction, was he actually travelling?

(a) South (b) East (c) West (d) North

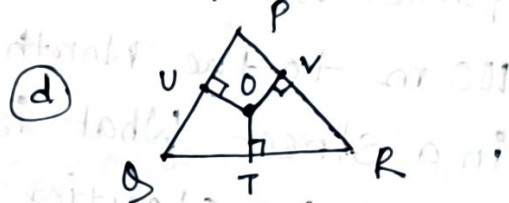
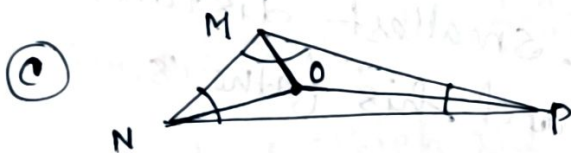
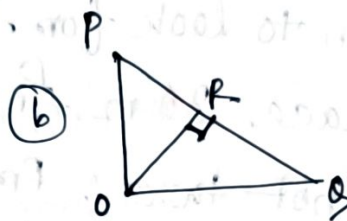
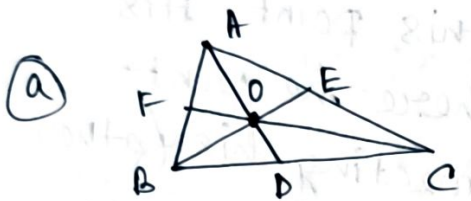
⑬ $(-\frac{1}{5})P \frac{2}{3} Q \frac{9}{10} R \frac{1}{4} S \frac{1}{7} = ?$ if

'P' → addition; 'Q' → multiplication

'R' → subtraction; 'S' → division

(a) $\frac{27}{20}$ (b) $-2\frac{7}{20}$ (c) $\frac{27}{5}$ (d) $-1\frac{7}{20}$

- 14) Select the correct option from the following figures, representing Incenter of a triangle -



- 15) Identify the correct number in place of question mark.

0.25	$\frac{1}{5}$	0.35
$\frac{2}{8}$	40	100
1.96	?	100

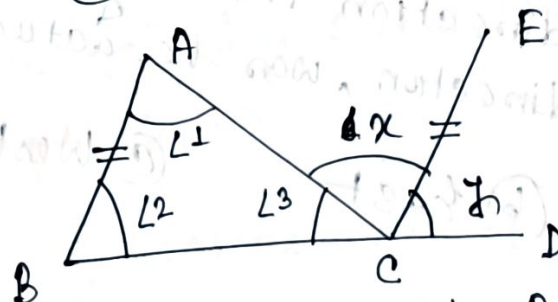
(a) 64

(b) 1600

(c) 8

(d) 100

16)



In the above figure, the side BC of $\triangle ABC$ is extended upto point D. $CE \parallel AB$, then which of the following option is correct?

(a) $\angle BCE + \angle ECD = \angle 1 + \angle 2 + \angle 3$

(b) $\angle 3 + \angle 4 = \angle x$

(c) $\angle 1 + \angle 4 = 180^\circ + \angle 3$

(d) $\angle 2$ & $\angle 4$ are co-interior angles.

(17) Median : ? $\therefore$ Angle bisector : Incentre

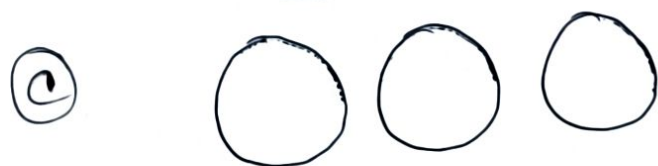
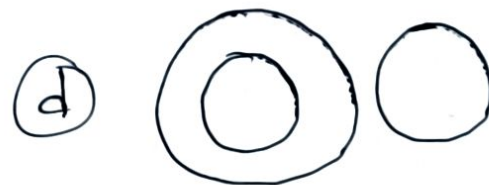
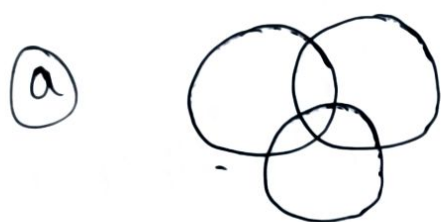
(a) Circumcentre

(c) Centroid

(b) Altitude

(d) Orthocentre

(18) Which of the following ven-diagram perfectly shows the relation between —
Equilateral, Isosceles and Scalene triangles



(19) $\nabla \times (\beta + \alpha - \theta) = ?$

(a) $\nabla \times \beta - \nabla \times \alpha + \nabla \times \theta$

(b) $\beta \times \alpha + \nabla \times (\beta - \theta)$

(c) $\nabla \times \beta + \nabla \times \theta - \nabla \times \alpha$

(d) $\nabla \times \beta + \nabla \times \alpha - \nabla \times \theta$

(20) Assertion: Range of the given data —
 $-37, \frac{4}{5}, 14, 21, -\frac{3}{5}, 17, \frac{19}{5}$ is 54

Reason: Range of a data = Max. Obs. — Min. Obs.

(a) A ✓ R ✓ E ✓

(c) A ✗ R ✓

(b) A ✓ R ✓ E ✗

(d) A ✓ R ✗