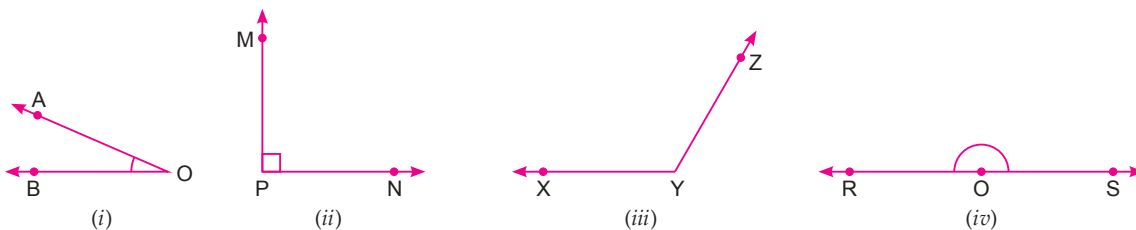


CHAPTER 11

UNDERSTANDING ELEMENTARY SHAPES (2-D AND 3-D)

More Questions for Practice

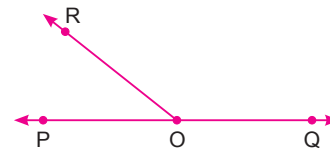
- Using a scale, draw a line segment AB of length 6 cm. Mark two points P and Q on \overline{AB} such that $AP = PQ = QB$.
- Classify the following angles:



- Name the following quadrilaterals:




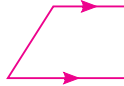
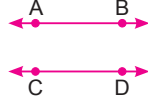
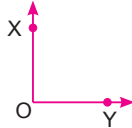
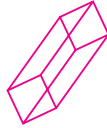




- Which could be the measures of an acute angle out of 71° , 90° , 101° , 135° , 65° and 17° ?
- Which could be the measures of an obtuse angle out of 150° , 75° , 80° , 90° , 120° and 180° ?
- Using symbols \parallel or \perp , denote:
 - two perpendicular lines l and m ;
 - two parallel lines p and q .
- Using a protractor, measure $\angle POR$ and $\angle QOR$ and find $m\angle POR + m\angle QOR$.
- Based on angles, classify the triangles.
 - Based on sides, classify the triangles.
- Name various polygons having (a) 5 sides, (b) 6 sides, (c) 8 sides, and (d) 10 sides.
- Fill in the blanks:
 - An angle of measure 77° is an _____ angle.
 - In a right angle AOB , the two rays \overrightarrow{OA} and \overrightarrow{OB} are _____ to each other.
 - Two lines that never meet are called _____ lines.
 - A protractor is used to measure an _____.
 - At 3 O'clock the hour hand and minute hand of a clock make an angle of measure _____.



- (f) A hexagon is a polygon of _____ sides.
- (g) A triangle has _____ diagonals.
- (h) A cube has _____ edges, _____ vertices and _____ faces.
- (i) A solid with 1 curved face, no edges and no vertices is a _____.
- (j) For every polyhedron, the Euler's formula states _____.
- 11.** Draw a sketch for each of the following:
- (a) A 5-sided non-regular polygon (b) A 4-sided regular polygon
- (c) A trapezium (d) Two parallel lines AB and CD
- (e) Two perpendicular rays (f) A square prism
- (g) A triangular pyramid (h) A cylinder
- 12.** State whether the following statements are *true* (T) or *false* (F):
- (a) A square is a special case of a rhombus and a rectangle.
- (b) A complete angle is same as zero angle.
- (c) A cylinder has no vertices.
- (d) A dice is a model of a cuboid.
- (e) A 5-sided polygon has four diagonals.
- (f) The opposite sides of a kite are of different lengths.

ANSWERS

1. 
2. (i) Acute angle (ii) Right angle (iii) Obtuse angle (iv) Straight angle
3. (i) A parallelogram (ii) A square (iii) A rectangle (iv) A trapezium
4. 71° , 65° , 17° 5. 150° , 120° 6. (a) $l \perp m$ (b) $p \parallel q$
7. $\angle POR = 70^\circ$ and $\angle QOR = 110^\circ$; $m\angle PQR + m\angle QOR = 180^\circ$
8. (a) Acute-angled triangle, obtuse-angled triangle and right-angled triangle.
(b) Scalene triangle, equilateral triangle and isosceles triangle.
9. (a) pentagon; (b) hexagon; (c) octagon; (d) decagon.
10. (a) acute (b) perpendicular (c) parallel (d) angle (e) 90° (f) six
(g) no (h) twelve, eight, six (i) sphere (j) $V + F - E = 2$
11. (a)  (b)  (c)  (d) 
- (e)  (f)  (g)  (h) 
12. (a) T (b) F (c) T (d) F (e) F (f) T