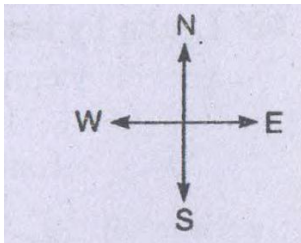


Class: 6
Subject: Mathematics
Topic: Understanding Elementary Shapes
No. of Questions: 20

- Q1. Why is it better to use a divider than a ruler, while measuring the length of a line segment?
- Q2. If A, B, C are three points on a line such that $AB = 5$ cm, $BC = 3$ cm and $AC = 8$ cm, which one of them lies between the other two?
- Q3. If B is the mid-point of \overline{AC} and C is the mid-point of \overline{BD} , where A, B, C, D lie on a straight line, say why $AB = CD$?

- Q4. How many right angles do you make if you start facing



- (a) South and turn clockwise to west?
(b) North and turn anti-clockwise to east?
(c) West and turn to west?
(d) South and turn to north?
- Q5. Where will the hour hand of a clock stop if it start?
- (a) From 6 and turns through 1 right angle?
(b) From 8 and turns through 2 right angles?
(c) From 10 and turns through 3 right angles?
(d) From 7 and turns through 2 straight angles?
- Q6. Using a pencil and a ruler, draw an acute angle, an obtuse angles, a straight angle and a reflex angle.

Q7. The hour hand of the clock moves 5 to 7. What does the angle look like? Is the angle moves by hour hand more than 1 right angle?

Q8. Match the following:

- | | |
|--------------------|---|
| (i) Straight angle | (a) Less than one-fourth a revolution |
| (ii) Right angle | (b) More than half a revolution |
| (iii) Acute angle | (c) Half of a revolution |
| (iv) Obtuse angle | (d) One - fourth a revolution |
| (v) Reflex angle | (e) Between $\frac{1}{4}$ and $\frac{1}{2}$ of a revolution |
| | (f) One complete revolution |

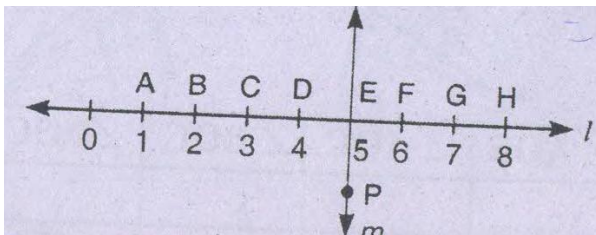
Q9. Say true or False:

- (a) The measure of an acute angle $< 90^\circ$
- (b) The measure of an obtuse angle $> 90^\circ$
- (c) The measure of a reflex angle $> 180^\circ$
- (d) The measure of one complete revolution = 360°
- (e) If $m \angle A = 53^\circ$ and $m \angle B = 35^\circ$, then $m \angle A > m \angle B$.

Q10. Fill in the blanks with acute, obtuse, right or straight:

- (a) An angle whose measure is less than that of a right angle is _____.
- (b) An angle whose measure is greater than that of a right angle is _____.
- (c) An angle whose measure is the sum of the measures of two right angles is _____.
- (d) When the sum of the measures of two angles is that of a right angles, then each one of them is _____.
- (e) When the sum of the measures of two angles is that of a straight angle, one of them should be _____ or _____.

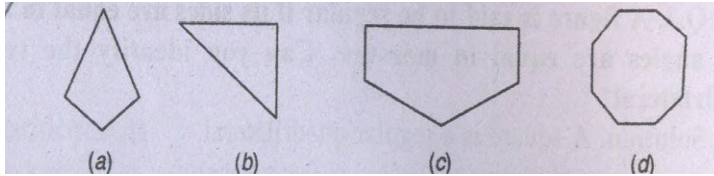
Q11. Study the diagram. The line l is perpendicular to line m .



- (a) Is $CE = EG$?
- (b) Does PE bisect CG ?

- (c) Identify any two line segments for which PE is the perpendicular bisector.
(d) Are these true?
(i) $AC > FG$ (ii) $CD = GH$ (iii) $BC < EH$.
- Q12. Name the types of following triangles:
(a) Triangle with lengths of sides 7cm , 8cm and 9 cm.
(b) $\triangle ABC$ with $AB = 8.7$ cm, $AC = 7$ cm and $BC = 5$ cm.
(c) $\triangle PQR$ such that $PQ = QR = PR = 5$ cm.
(d) $\triangle DEF$ with $m \angle D = 90^\circ$
(e) $\triangle XYZ$ with $m \angle Y = 90^\circ$, $XY = YZ$.
(f) $\triangle LMN$ with $m \angle L = 30^\circ$, $\angle M = 70^\circ$ and $m \angle N = 80^\circ$
- Q13. Given reasons for the following:
(a) A square can be thought of as a special rectangle.
(b) A rectangle, can be thought of as a special parallelogram.
(c) A square can be thought of as a special rhombus.
(d) Squares, rectangles, parallelograms are all quadrilaterals.
(e) Square is also a parallelogram.
- Q14. What is the difference between line and a line segment?
- Q15. A traffic policeman is standing looking east. In which direction will he turn if he turns to the left though:
(i) One right angle
(ii) Two right angles
(iii) Three right angles, and
(iv) Four right angles.
- Q16. Take three collinear points A, B, C. Is figure formed by AB, BC and CA triangle? If no then why?
- Q17. Are the equilateral triangles also isosceles?

Q18. Name each polygon:



Q19. Draw a rough sketch of a regular hexagon. Connecting of its vertices, draw a triangle, Identify the type of the triangle you have drawn.

Q20. Draw a rough sketch of a regular octagon. (Use squared paper if you wish). Draw a rectangular by joining exactly four of the vertices of the octagon.

askITians