Transweb Educational Services Pvt Ltd
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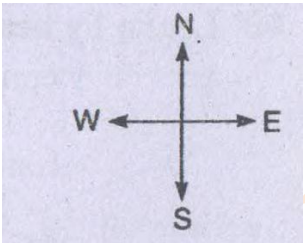
Class: 6
Subject: Mathematics
Topic: Understanding Elementary Shapes
No. of Questions: 20

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 the 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 $< 90°$

(b) The measure of an obtuse angle $> 90°$

(c) The measure of a reflex angle $> 180°$

(d) The measure of one complete revolution $= 360°$

(e) If m $\angle A = 53°$ and m $\angle B = 35°$, 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 _____.

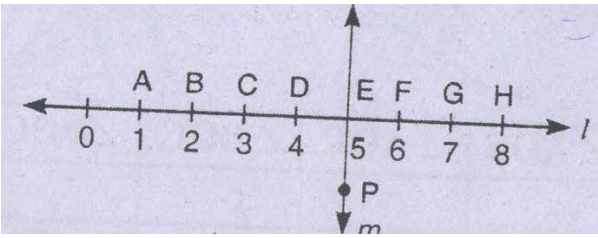
(b) An angle whose measure is greater than that of a right angle is _____.

(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?

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(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) ΔABC with AB = 8.7 cm, AC = 7 cm and BC = 5 cm.
(c) ΔPQR such that PQ = QR = PR = 5 cm.
(d) ΔDEF with m ∠D = 90°
(e) Δ XYZ with m ∠Y = 90°, XY=YZ.
(f) Δ LMN with m ∠L = 30° , ∠M = 70° and m ∠N = 80°

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 be took 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?

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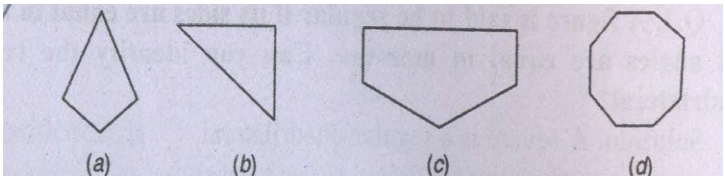
Q18. Name each polygon:



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.