Important Questions for CBSE Class 6 Maths Chapter 5 – Understanding Elementary Shapes

Ch – 5 Understanding Elementary Shapes

1. How many right angles do you make if you start facing south and turn clockwise to west?
   1. 1
   2. 2
   3. 3
   4. 4
2. Find the number of right angles turned through by the hour hand of a clock when it goes from 3 to 6.
   1. 4

   2. 2

   3. 1

   4. 3

3. What fraction of a clockwise revolution does the hour hand of a clock turn through, when it goes from 12 to 3?

   1. 1313

   2. 1

   3. 1212
   4. 1414
4. What is the angle name for half a revolution?
   1. Right angle

   2. Straight angle

   3. Complete angle

   4. Reflex angle

5. How do we write "$\overrightarrow{PQ}$ is perpendicular to $\overrightarrow{RS}$" symbolically?

1. $\overleftrightarrow{PQ}\,//\,\overleftrightarrow{RS}$

2. $\overleftrightarrow{PQ}\neq\overleftrightarrow{RS}$

3. $\overleftrightarrow{PQ}\perp\overleftrightarrow{RS}$

4. $\overleftrightarrow{PQ}=\overleftrightarrow{RS}$

6. **Match the following 3D shape and its edges.**

Column A	Column B
1. Cube	(a) 6
2. Square pyramid	(b) 12
3. Triangular prism	(c) 8
4. Triangular pyramid	(d) 9

7. **Fill up the following:**

1. Measure of a complete angle is _____°.
2. The triangle in which _____ sides are equal is called isosceles triangle.
3. Each of its angles rectangle measures _____°.
4. A cube has _____ vertices.

8. **State true or false:**

1. Sum of any two sides of a triangle is greater than the third side.
2. An equilateral triangle is also considered as an isosceles triangle
3. A polygon is regular if its all sides are equal.
4. Opposite faces of a cuboid are equal in size.

9. How many faces a tetrahedron have?

10. What is the angle name for half a revolution?

11. Draw a hexagon and write its sides and diagonals?

12. If B is the mid point of $\overline{AC}$ and C is the point of $\overline{BD}$. where A, B, C, D lie on a straight line, say why AB = CD?

13. Draw a rough sketch of a regular octagon. Draw a rectangle by joining exactly four of the vertices of the octagon.

14. Measure the angles given below, using the Protractor and write down the measure.

15. All equilateral triangle are isosceles, but all isosceles triangle are not equilateral. Justify the statement.

Answer

1.
  a. 1

  Explanation: The four main direction north,
  east, south, west. Each of them are at 90°
  clockwise, i.e. we have to move 90° to move north
  to east, another 90° from east to south like that.
  So South to west we have to move only one 90° .
  so answer is 1
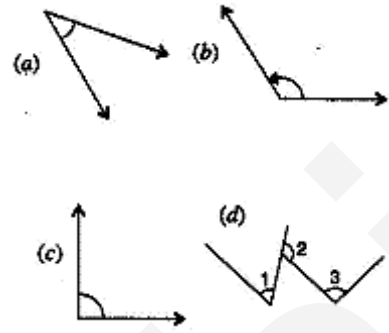
2.
  c. 1

  Explanation: Hour hand move 360° from 12 to 12 . So it moves 3 hr from 3 to 6
  . The factor of 3 to 12 =3/12=1/4=3/12=1/4
  Right angle = 90° , factor of 90° with 360° =90/360=1/4.=90/360=1/4.
  So Hour hand will turn one right angle to cross 3 to 6

3.
  d. (d) 1414 Explanation: In clock hour hand moves 12 hr from 12 o' clock to 12 o'
  clock. Fro12 to it 3 it is 3 hr , so fraction of 3 hr from 12 hr
  =3/12=1/4=3/12=1/4. Or, the hour hand moves360^o form 12 to 12, from 12 to
  3 it moves 90°, so fraction of 90° from 360° =90/360=1/4=90/360=1/4

4.
  b. Straight angle

  Explanation: One revolution = 360°
  Half revolution $x=-b\pm b2-4ac\sqrt{2}ax=-b\pm b2-4ac2a$ 180°
  180° is called straight angle

5.
  c. PQ←→⊥RS←→PQ↔⊥RS↔ Explanation: PQ←→⊥RS←→PQ↔⊥RS↔

6.
  1. – b
  2. – c
  3. – d
  4. – a

7.
 1. 360
  2. two
  3. 90
  4. 8

8.
  1. True
  2. False; in isosceles triangle only two sides are equal.
  3. False; For a polygon to be regular, all sides as well as all angles have to be
    equal.
  4. True

9. In geometry, a tetrahedron is a polyhedron composed of four triangular faces, three of which meet at each corner or vertex.

10. Straight Angle (180°)

11. Hexagon

Sides of hexagon: AB, BC, CD, DE, EF and FA.
Diagonals of hexagon: AC, AD, AE, BD, BE, BF, CE, CF, and DF
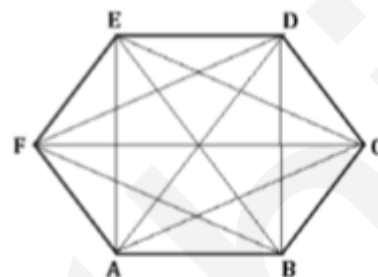
12.

∵ B is the mid-point of $\overline{AC}$ $\overline{AC}$
∴ AB = BC ...(1)
∵ C is the mid-point of $\overline{BD}$ $\overline{BD}$
∴ BC = CD ...(2)
In view of (1) and (2), we get
AB = CD.

13.

14.

    1. 45°
    2. 125°
    3. 90°
    4. ∠1 = 40°, ∠2 = 125° and ∠3 = 95°.

15. An isosceles triangle is any triangle with 2 sides that are equal in length. So every equilateral triangle is a special case of an isosceles triangle since not just 2 sides are equal, but all 3 are. But every isosceles triangle is not equilateral, because you can have 2 sides of equal length and a third side that is either longer or shorter than those 2 sides. For example, if the triangle is a right-angle triangle and the two sides that meet to make the right angle are the same length, then the 3rd side would be longer than those two.