

# SA - I (2016-17)

## Class - VI

### Mathematics

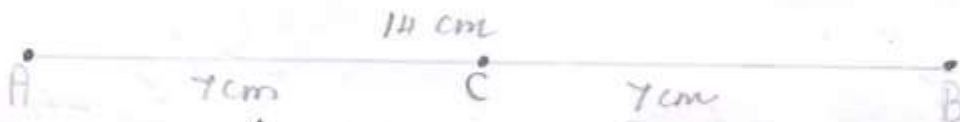
VI → Chapter: 12 [Understanding Elementary Shapes]

Exercise 12.1 :-

Q3) If P, Q, R are points such that  $\overline{PQ} = 11 \text{ cm}$ ,  $\overline{PR} = 8 \text{ cm}$  and  $\overline{RQ} = 3 \text{ cm}$  which point lies between the other two points?



Q4) If  $\overline{AB} = 14 \text{ cm}$ ,  $\overline{AC} = 7 \text{ cm}$  and  $\overline{CB} = 7 \text{ cm}$  and C lies on AB then C is called Mid point of  $\overline{AB}$ .



Q8) How many lines are passing through O? How many more lines can pass through 'O'?

\* Lines are passing through O = 4

\* Infinite lines can pass through 'O'.

Q10) a) Is  $\overline{BF} = \overline{PX}$  : Yes

b) Is D the mid-point of AD? : Yes

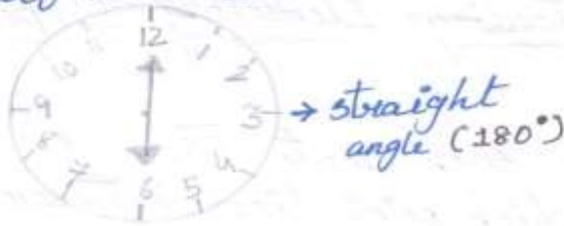
c) Name two line segments for which Q is the midpoint :  $\overline{PR}$  and  $\overline{FS}$

d) Say whether the following statements are true or False i) False ii) True iii) True iv) False v) True.

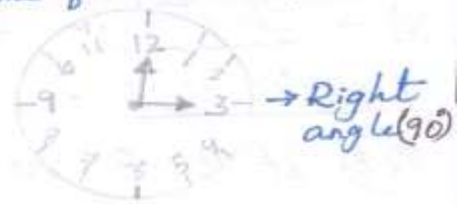
(Exercise 12.2)

1. Name of the angle when the hand of a clock makes

a) Half Revolution

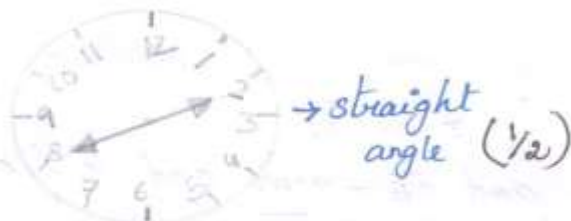


b) One-fourth Revolution

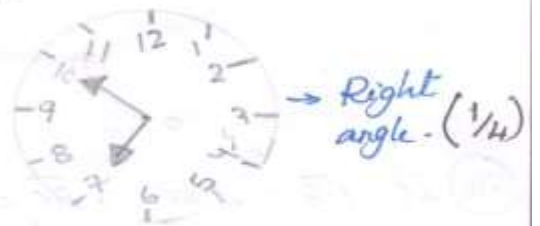


Q.2

a) 2 to 8



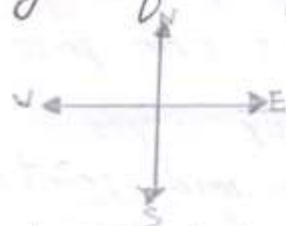
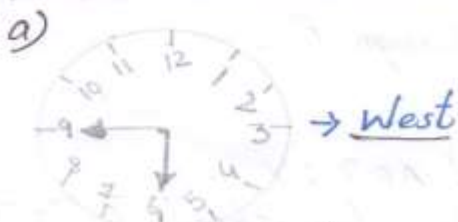
b) 7 to 10



Q.3. a) 1 and makes  $\frac{1}{3}$  of a revolution  
 b) 7 and makes  $\frac{1}{3}$  of a revolution.

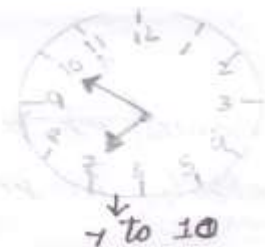


Q.4.) which direction will you face if you initially face



Q.5. a) south and turn clockwise to face west?  $\frac{1}{4}$  revolution  
 b) East and turn clockwise to face south?  $\frac{1}{4}$  revolution

Q.8. a) From 5 and turns through two right angles?  
 b) From 7 and turns through a right angle?





### Exercise 12.3

Q2. Match the following.

- a)  $40^\circ \rightarrow$  acute angle      c)  $180^\circ$  - straight angle.  
b)  $360^\circ \rightarrow$  complete angle      d)  $275^\circ$  - Reflex angle  
e)  $90^\circ \rightarrow$  right angle      f)  $114^\circ$  - obtuse angle.

Q4. With reference to the given diagrams, write the type of each of the following angle.

Name of the angle	Measure of the angle	Type of angle.
* Angle FAB	$110^\circ$	obtuse angle
* Angle ABC	$100^\circ$	obtuse angle
* Angle AFE	$100^\circ$	obtuse angle
* Angle FED	$80^\circ$	Acute angle
* Angle CDE	$258^\circ$	Reflex angle.

Q5. Measure  $\angle BAC$  and  $\angle PQR$  and find which is biggest. ANS:-  $\angle BAC = 46^\circ$ ,  $\angle PQR = 69^\circ$   
 $\angle PQR$  is bigger than  $\angle BAC$ .

### Exercise 12.4

Q1. Name the type of the following triangles.

- a) A triangle in which one angle is a right angle.

ANS:- Right - Angled triangle.

- b) A triangle having three equal sides (Equilateral Triangle)

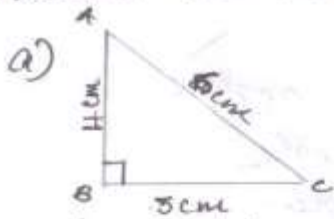
Q4. Name each of the following triangles in to different ways. a) scalene Triangle  
Acute angle triangle

- b) scalene Triangle, obtuse angle triangle.

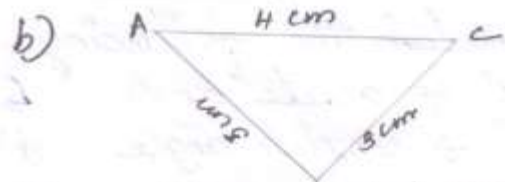
Q6. Identify the different types of triangles in the given figure and name them.

- a) scalene Triangle      b) Isosceles Triangle.

Q8. Draw the rough sketch of the following triangles.



A scalene right-angled triangle.



An obtuse-angled triangle.

(Exercise 12.5)

Q2. Name the following quadrilaterals.

a) A parallelogram in which all sides are equal

ANS:- Rhombus.

b) A regular quadrilateral ANS:- square.

Q3. Give reasons for the following.

a) A trapezium is not a parallelogram

ANS:- Because in a parallelogram opposite sides are parallel but in a trapezium only one pair of opposite sides parallel.

b) A square is a rectangle as well as rhombus.

ANS:- All its sides and angles are equal.

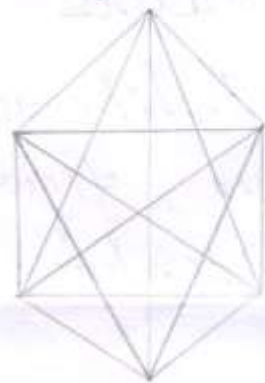
c) A rhombus is not a regular quadrilateral

ANS:- Every angle is a right angle and opposite sides are equal.

(Exercise 12.6)

Q3. ANS:- Hexagon has a 6 sides. In each point 3 diagonals can be drawn. So that total number of diagonals =  $6 \times 3 = 18$ . But here diagonals are repeated at 2 times.

So,  $\frac{18}{2} = 9$  diagonals.





ANS:-  
 Q4. a) Decagon b) Quadrilateral c) Triangle  
 d) Equilateral Triangle.

(Exercise 12.7)

Q1. Give some example for solid shapes.  
 Book, ice-cream, ball.

Q2. Identify the shape of the following  
 a) cuboid b) cone c) cylinder d) sphere  
 e) cube f) cuboid.

Q4. What are the differences between a prism and a pyramid?

Prism	Pyramid.
* A prism has two identical bases and its all other faces are rectangles	* Pyramid has triangular surfaces and bases are different polygons.
* Triangular prism has a triangular base	* The triangular surfaces meet at one common point.

Chapter : 13      Symmetry → (Ex 13.2)

Q1. Find the number of lines of symmetry for each of the following shapes.

a) 2 lines of symmetry    b) 2 lines of symmetry.  
 b) 1 line of symmetry.

Q2. Draw the lines of symmetry for the following.

