

## CLASS VII – MATHEMATICS – chapter 05 LINES AND ANGLES

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Q1.** How many points a line segment have?

- (a). 2                                      (b). 1                                      (c). 3                                      (d). 0

**Q2.** How many end points a ray have?

- (a). 1                                      (b). 2                                      (c). 3                                      (d). 0

**Q3.** In the following figure which angle is vertically opposite to  $\angle 4$ ?

- (a).  $\angle 2$                                       (b).  $\angle 1$                                       (c).  $\angle 3$                                       (d).  $\angle 5$

**Q4.** In the following figure which angle is adjacent to  $\angle 1$ ?

- (a).  $\angle 3$                                       (b).  $\angle 2$                                       (c).  $\angle 4$                                       (d). none of these

**Q5.** In the following figure which angle is adjacent to  $\angle AOC$ ?

- (a).  $\angle DOB$                                       (b).  $\angle COE$                                       (c).  $\angle BOE$                                       (d). none of these

**Q6.** If a line is a transversal to one line, how many points of intersections are there?

- (a). 3                                      (b). 2                                      (c). 1                                      (d). 4

**Q7.** If a line is a transversal to two lines, how many points of intersections are there?

- (a). 1                                      (b). 3                                      (c). 2                                      (d). 4

**Q8.** If a line is a transversal to three lines, how many points of intersections are there?

- (a). 1                                      (b). 2                                      (c). 3                                      (d). 4

**Q9.** State the property that is used below: If  $a \parallel b$ , then  $\angle 1 = \angle 5$ .

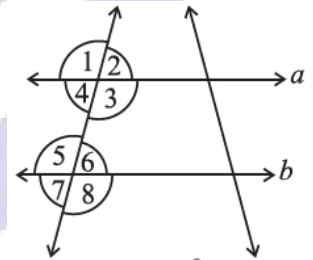
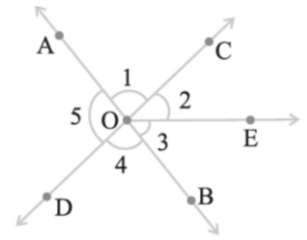
- (a). alternate interior angles                                      (b). pair of interior angle  
(c). vertically opposite angles                                      (d). corresponding angles

**Q10.** State the property that is used below. If  $\angle 4 = \angle 6$ , then  $a \parallel b$ .

- (a). corresponding angles                                      (b). alternate interior angles  
(c). vertically opposite angles                                      (d). pair of interior angle

**Q11.** State the property that is used below. If  $\angle 4 + \angle 5 = 180^\circ$ , then  $a \parallel b$ .

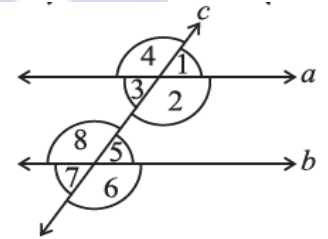
- (a). alternate interior angles                                      (b). pair of interior angle  
(c). vertically opposite angles                                      (d). corresponding angles



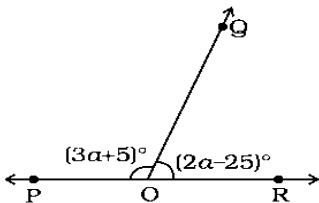
# D CUBE AURA

**Q01.** Fill in the blanks:

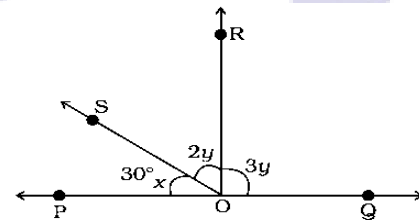
- (a). When the sum of the measures of two angles is  $90^\circ$ , the angles are called \_\_\_\_\_.
- (b). \_\_\_\_\_ angles have a common vertex and a common arm but no common interior points.
- (c). When two lines intersect, the vertically opposite angles so formed are \_\_\_\_\_.
- (d). Two lines  $l$  and  $m$  intersect if they have a point in \_\_\_\_\_.
- (e). When a transversal cuts two lines, such that pairs of corresponding angles are equal, then the lines have to be \_\_\_\_\_.
- (f). Whenever two angles are complementary, each angle is said to be the \_\_\_\_\_ of the other angle.
- (g). A \_\_\_\_\_ is a pair of adjacent angles whose non-common sides are opposite rays.
- (h). If we fail to do the same mathematical operation on both sides of a balanced equation, the balance is \_\_\_\_\_.
- (i). A line that intersects two or more lines at distinct points is called a \_\_\_\_\_.
- (j). When a transversal cuts two lines, such that pairs of \_\_\_\_\_ are equal, the lines have to be parallel.
- (k). The complement of angle  $30^\circ$  is \_\_\_\_\_.
- (l). The angles in a linear pair are \_\_\_\_\_.
- (m). If we fail to do the same mathematical operation on both sides of a balanced equation the balance is \_\_\_\_\_.
- (n). When a transversal cuts two lines, such that pairs of interior angles on the same side of the transversal are \_\_\_\_\_, the lines have to be parallel.
- (o). In the following figure, identify the pairs of alternate interior angles, pairs of corresponding angles and interior angles on the same side of the transversal



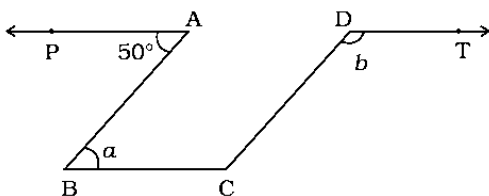
**Q02.** If POR is a line then find the value of  $a$ ?



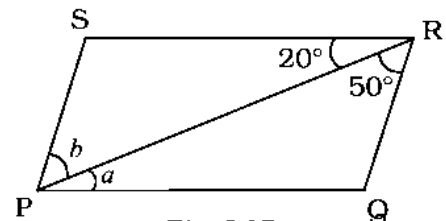
**Q03.** Find the value of  $y$  if  $x = 30$ .



**Q04.** If  $PA \parallel BC \parallel DT$  and  $AB \parallel DC$  then, find the value of  $a$  &  $b$ .

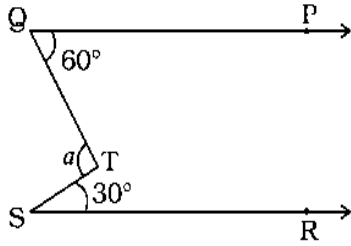


**Q05.** If  $SR \parallel PQ$  and  $SP \parallel RQ$  then, find the value of  $a$  &  $b$ .

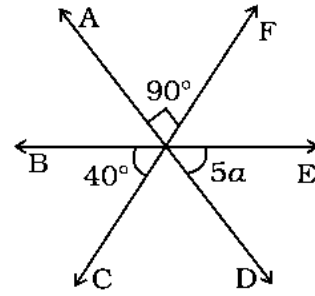


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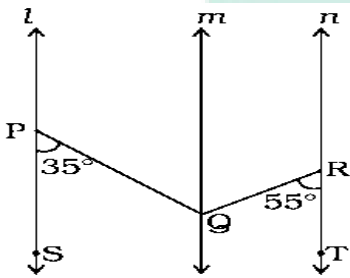
**Q06.** If  $QP \parallel SR$  the value of  $a$  is



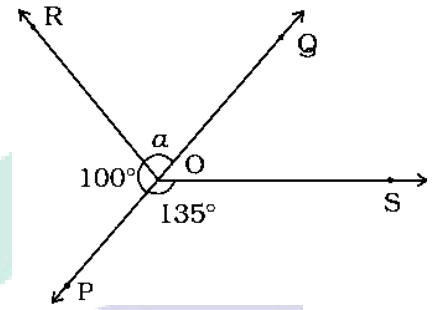
**Q07.** Find the value of  $a$



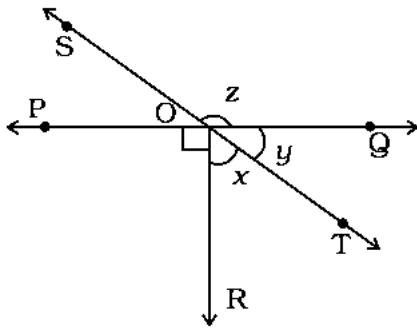
**Q08.** If  $l \parallel m \parallel n$ ,  $\angle QPS = 35$  and  $\angle QRT = 55$ . Find  $\angle PQR$



**Q09.** If  $POQ$  is a line, then  $a$  is equal to



**Q10.** Line  $PQ$  and  $ST$  intersect at  $O$ . If  $\angle POR = 90$  and  $x : y = 3 : 2$ , then  $z$  is equal to



**Q11.** If  $PQ \parallel ST$ . Then the value of  $x + y$  is

