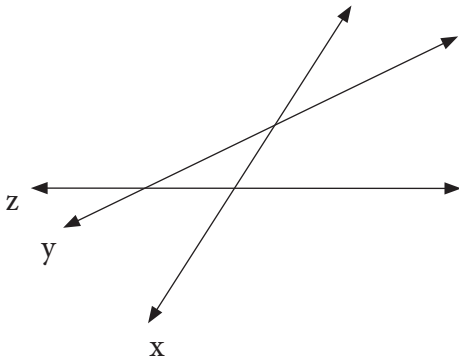


# Lines and Angles

## Q1. Tick the correct answer:

In the figure given below, the lines  $x$ ,  $y$  and  $z$  are:



- Concurrent lines
- Intersecting lines
- Perpendicular lines

## Q2. If lines $x$ , $y$ and $z$ are such that:

$x \parallel y$  and  $y \parallel z$

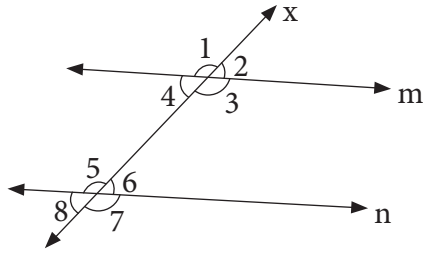
then is it necessary that,  $x \parallel y \parallel z$ ?

Answer: \_\_\_\_\_

## Q3. Fill in the blanks:

- Three or more lines passing through the same point are \_\_\_\_\_ lines.
- Three or more points lying in a plane are \_\_\_\_\_ if they all lie on the same line.
- The initial point of ray is \_\_\_\_\_.
- \_\_\_\_\_ lines can pass through a given point.

**Q4.** In the given figure, lines  $m \parallel n$ . Observe the figure carefully and tick the correct answers for the following questions:



- a. Pair of corresponding angles : i.  $\angle 1$  and  $\angle 5$  ii.  $\angle 2$  and  $\angle 8$   
 b. Pair of alternate interior angles : i.  $\angle 2$  and  $\angle 6$  ii.  $\angle 3$  and  $\angle 5$   
 c. Pair of alternate exterior angles : i.  $\angle 1$  and  $\angle 5$  ii.  $\angle 1$  and  $\angle 7$   
 d. Pair of co-interior angles : i.  $\angle 3$  and  $\angle 4$  ii.  $\angle 3$  and  $\angle 6$

**Q5.** Match the following:

$15^\circ$ more than half of a right angle	$270^\circ$
$\frac{1}{4}$ of a straight angle	$360^\circ$
Four right angles	$60^\circ$
Reflex angle formed by minimum number of right angles	$45^\circ$

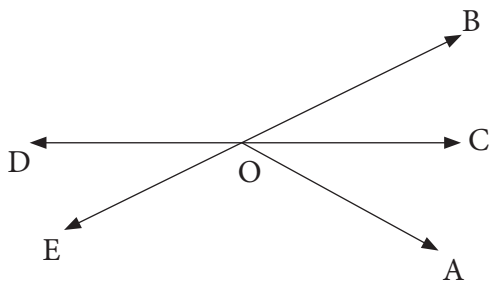
**Q6.** Two angles are complementary and one angle is  $30^\circ$  more than twice the other angle. Find the measure of the angles.

Answer: \_\_\_\_\_

**Q7.**  $\angle BOC$  and  $\angle AOB$  are supplementary. If the measure of  $\angle AOB$  is  $45^\circ 36' 57''$ , find the other angle.

Answer: \_\_\_\_\_

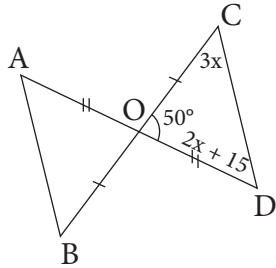
**Q8.** In the given figure,  $\angle AOB$  is two-third of a right angle.  $\overrightarrow{OC}$  is the angle bisector of  $\angle AOB$ . Find the measure of all the angles.



a.  $\angle AOB =$  \_\_\_\_\_

- b.  $\angle BOC =$  \_\_\_\_\_
- c.  $\angle COA =$  \_\_\_\_\_
- d.  $\angle DOB =$  \_\_\_\_\_
- e.  $\angle DOE =$  \_\_\_\_\_
- f.  $\angle AOE =$  \_\_\_\_\_

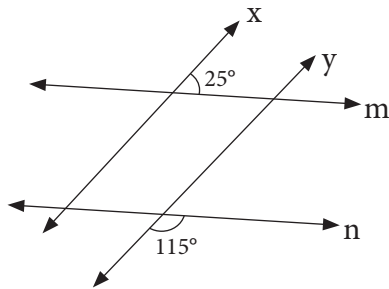
**Q9.** If  $AB \parallel CD$ , find the value of  $\angle OAB$  and  $\angle OBA$  in the following figure:



$\angle OAB =$  \_\_\_\_\_

$\angle OBA =$  \_\_\_\_\_

**Q10.** In the given figure, lines  $m \parallel n$ . As lines  $x \parallel y$ ?



Answer: \_\_\_\_\_

## Answers

- (b)
- Yes
- a. concurrent; b. collinear; c. point A; d. infinite
- a. (i); b. (ii); c. (ii); d. (ii)
- 

$15^\circ$ more than half of a right angle	$60^\circ$
$\frac{1}{4}$ of a straight angle	$45^\circ$
Four right angles	$360^\circ$
Reflex angle formed by minimum number of right angles	$270^\circ$

- $20^\circ, 70^\circ$
- $134^\circ 23' 3''$
- a.  $60^\circ$   
b.  $30^\circ$   
c.  $30^\circ$   
d.  $150^\circ$   
e.  $30^\circ$   
f.  $120^\circ$
- $\angle OAB = 61^\circ; \angle OBA = 69^\circ$
- Yes