Points and lines

1. Fill in the blanks.

a. The dot gives us the idea of a _____.

b. A tabletop gives an idea of a _____.

c. Two lines lying in a plane are _____if they do not intersect each other.

d. Concurrent lines pass through the _____.

e. Three points are _____if they all lie on a line.

2. Write 'T' for true and 'F' for false statements.

a. A line has a definite length.

b. A plane extends indefinitely in all the directions.

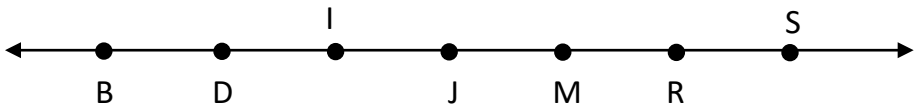
c. Two non - interesting lines in a plane are parallel.

d. The point of intersection of two lines is called the point of concurrence.

e. AB and BA denote the different lines.

f. A ray has fixed length.

3. Name the collinear and non-collinear points in the given figure a.



_____

_____

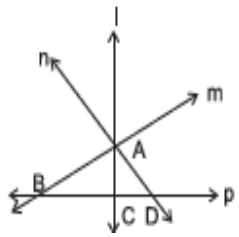
4. From figure, write

a. Collinear points _____

b. Concurrent lines _____

c. Pair of intersecting lines _____

d. Point of concurrence. _____



5. From figure, write the name of:

a. All pairs of parallel lines. _____

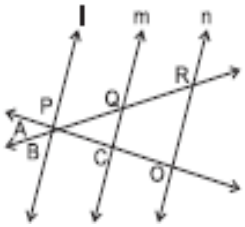
b. All pairs of intersecting lines. _____

c. Line whose point of intersection is P. _____

d. Line whose point of intersection is C. _____

e. Line whose point of intersection is R. _____

f. Collinear points _____



6. Mark four points A, B, C and D in your notebook such that no three of them are collinear. Draw all the lines which join them in pairs.

a. How many such lines can be drawn?

b. Write the names of these lines.

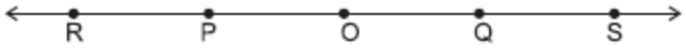
c. Name the lines which are concurrent at C.

7. **Explain why it is not possible for a line to have a mid-point.**

_____

_____

8. **Name all the rays shown in Figure, whose initial points are O, P and Q respectively.**



a. Is ray OR different from ray OP? _____

b. Is ray PQ different from ray PR? _____

9. **Give three examples of line segments from your environment.**

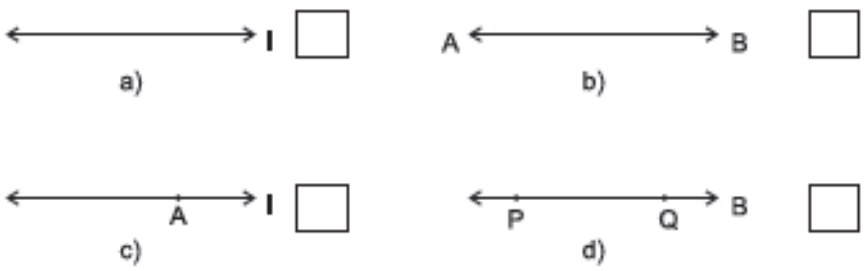
_____

_____

_____

10. **Draw a ray whose initial point is P and which passes through another point M.**

11. **Which of the adjoining figures represent a line segment?**



12. What is the difference between a line, a line segment and a ray?

_____

_____

_____

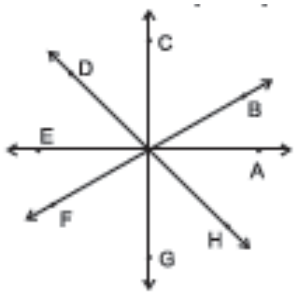
13. How many rays are represented in the given figure? Name them.

_____

_____

_____

_____



14. Give two examples of these from your environment.

a. intersecting lines _____

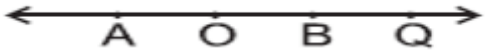
b. parallel lines _____

15. Give two examples from your environment of portion of

a. line _____

b. plane _____

16. In the given figure, state whether the following statements are true or false.



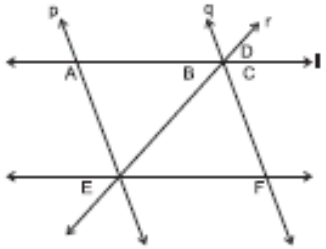
a. A is a point on ray OQ. ☐

b. Ray OQ is different from Ray PQ. ☐

c. P, A, O, B are points on the line AB. ☐

d. O and B are end points of the line segment OQ. ☐

17. In the given figure, write the name of:



a. All pairs of parallel lines. _____

b. All pairs of intersecting lines. _____

c. Collinear points. _____

d. Concurrent lines _____

e. Point of concurrence _____

f. Concurrent lines whose point of intersection is A. _____