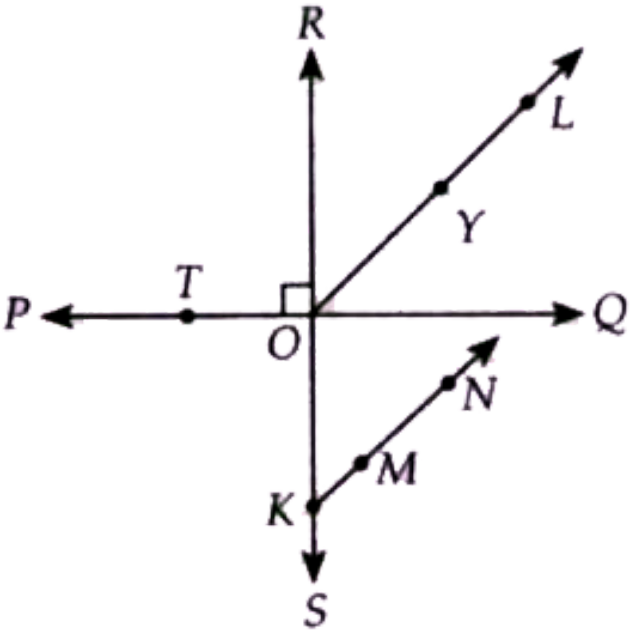
MATHS

BOOKS - MTG IIT JEE FOUNDATION

BASIC GEOMETRICAL IDEAS

Illustration

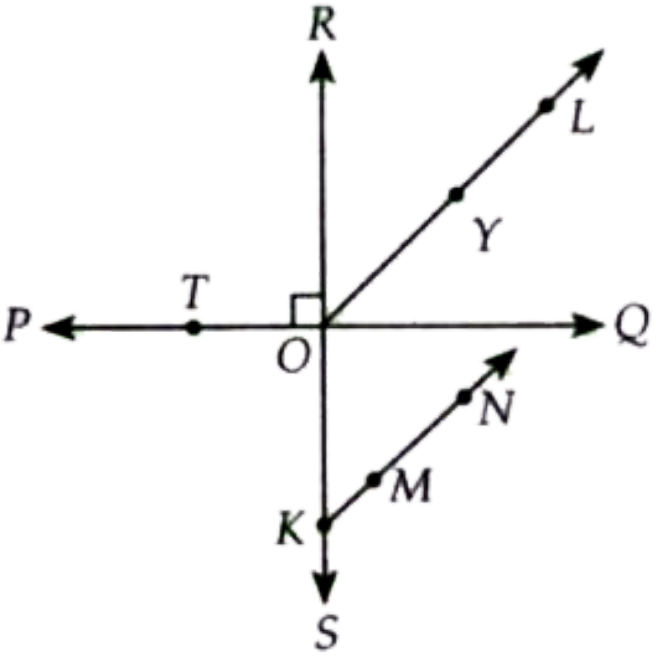
1. Look at the figure and name the following:



Three points

Watch Video Solution

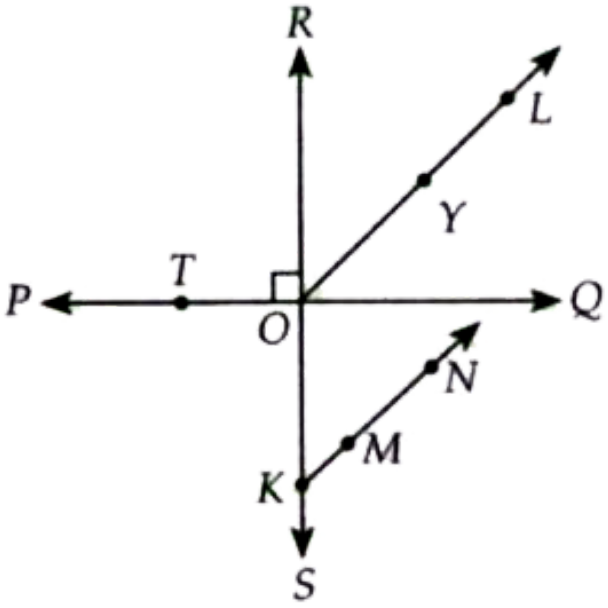
2. Look at the figure and name the following:



Two rays

Watch Video Solution

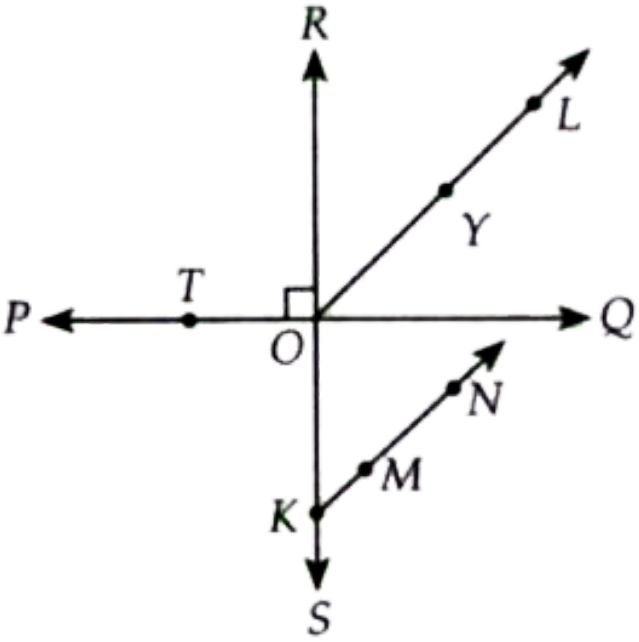
3. Look at the figure and name the following:



Two line segments

Watch Video Solution

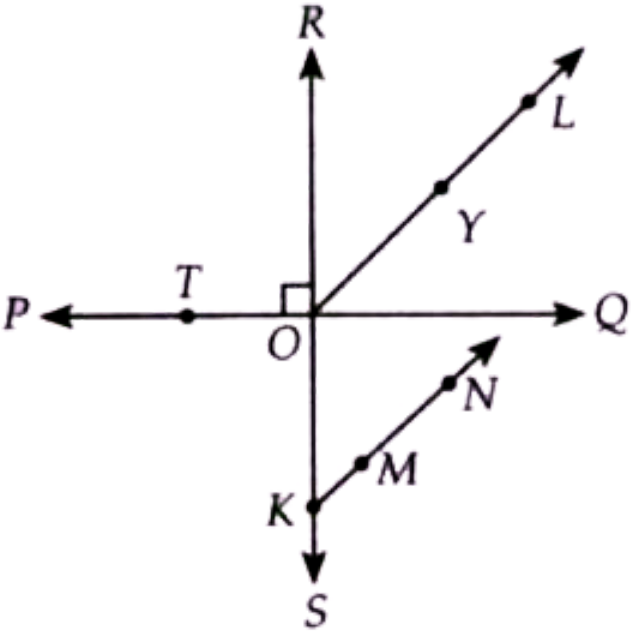
4. Look at the figure and name the following:



A pair of parallel lines

Watch Video Solution

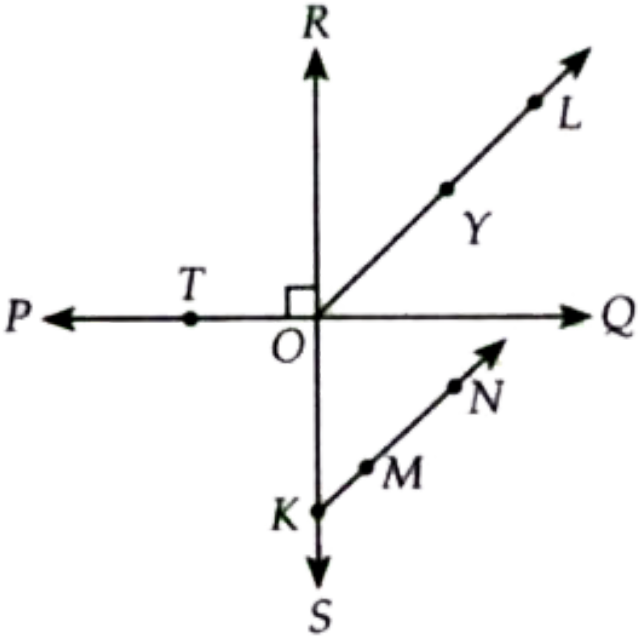
5. Look at the figure and name the following:



Two lines

Watch Video Solution

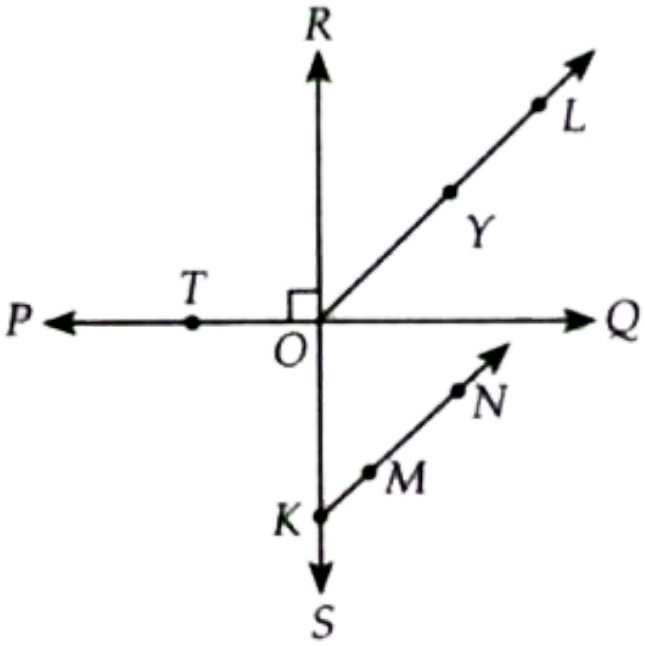
6. Look at the figure and name the following:



Pair of intersecting lines

Watch Video Solution

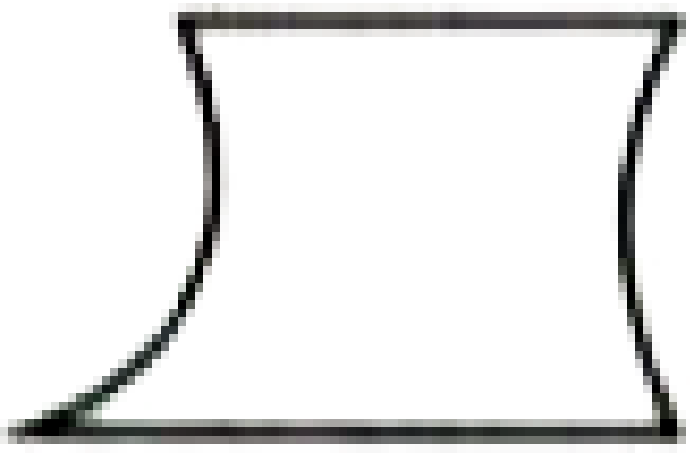
7. Look at the figure and name the following:



Pair of perpendicular lines

Watch Video Solution

8. Which of the following curves are closed or open?



Watch Video Solution

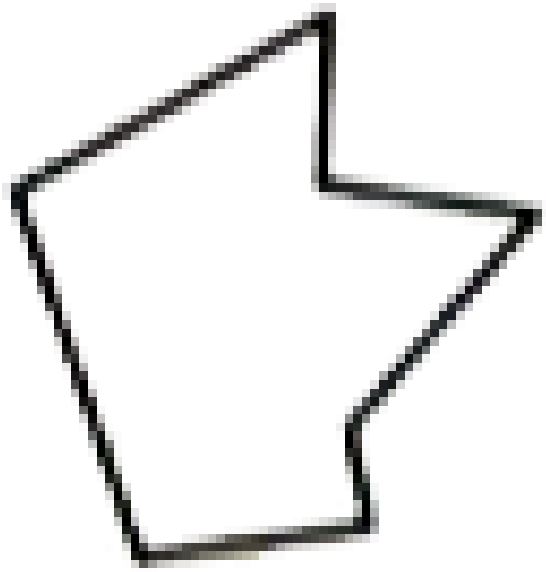
9. Which of the following curves are closed or open?

Watch Video Solution

10. Which of the following curves are closed or open?

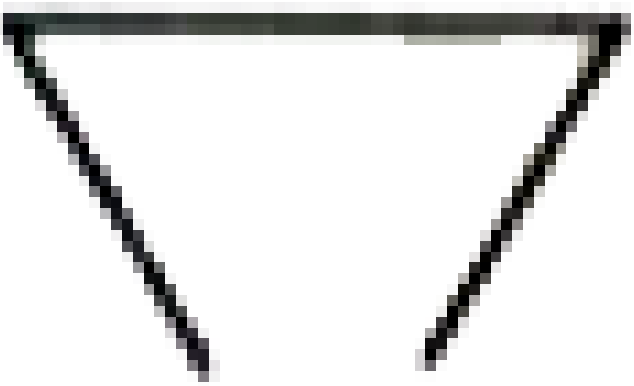
Watch Video Solution

11. Which of the following curves are closed or open?



Watch Video Solution

12. Which of the following curves are closed or open?

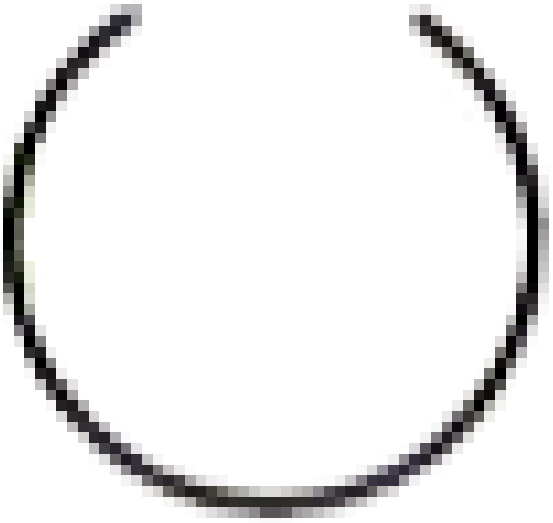


Watch Video Solution

13. Which of the following curves are closed or open?

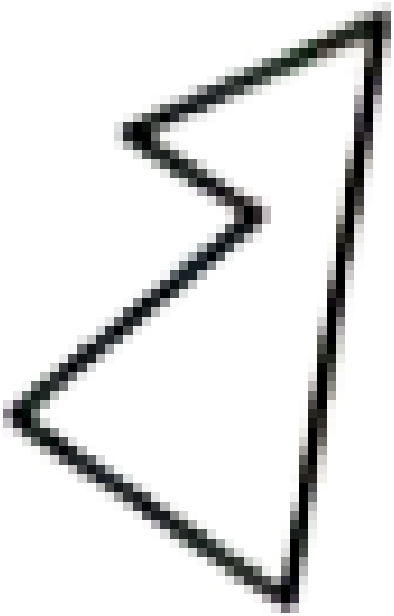
Watch Video Solution

14. Which of the following curves are closed or open?



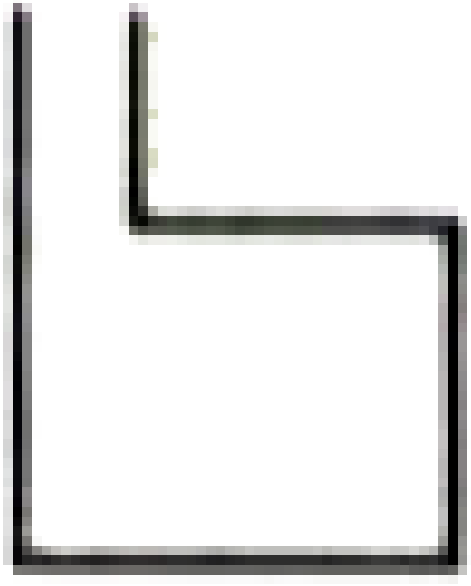
Watch Video Solution

15. Which of the following curves are closed or open?



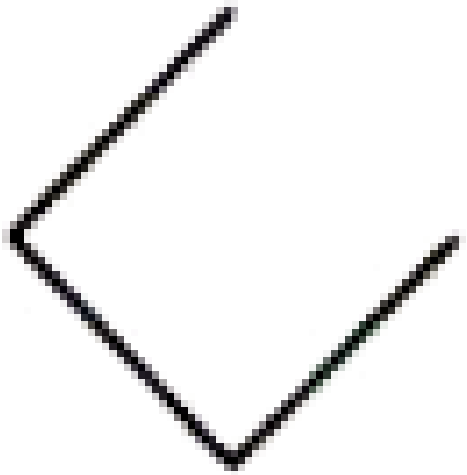
Watch Video Solution

16. Which of the following curves are closed or open?



Watch Video Solution

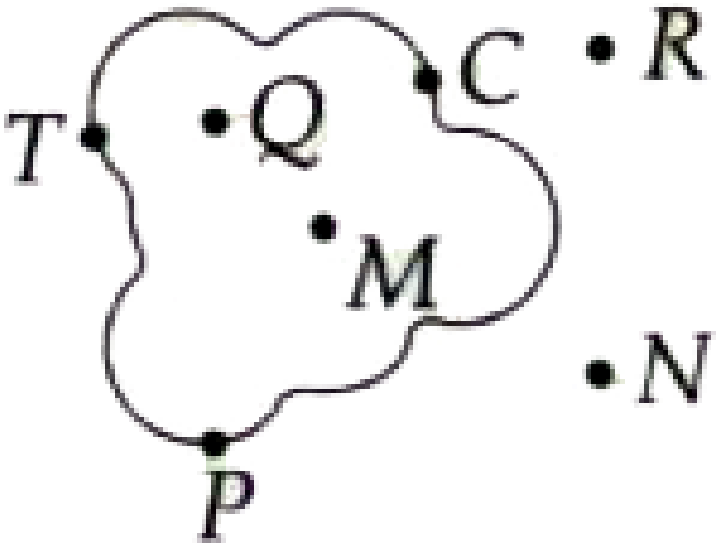
17. Which of the following curves are closed or open?



Watch Video Solution

18. In the given curve, name the point(s)

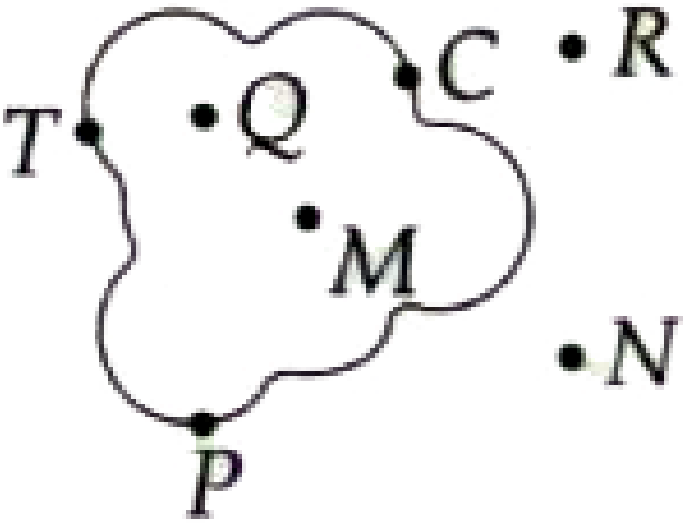
In the interior of the curve



Watch Video Solution

19. In the given curve, name the point(s)

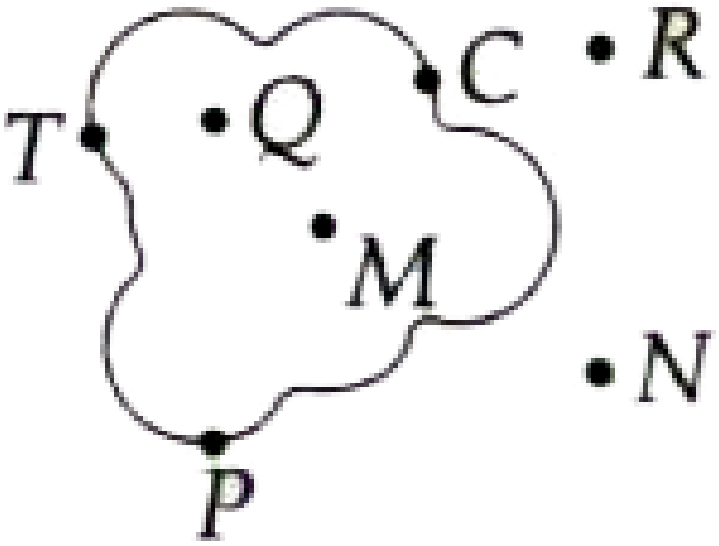
In the exterior of the curve



Watch Video Solution

20. In the given curve, name the point(s)

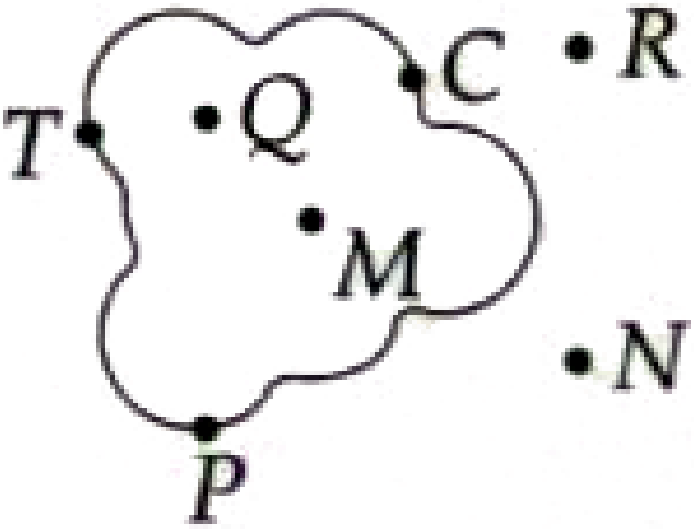
On the boundary of the curve



Watch Video Solution

21. In the given curve, name the point(s)

In the region of the curve



A. Five points

B. A line

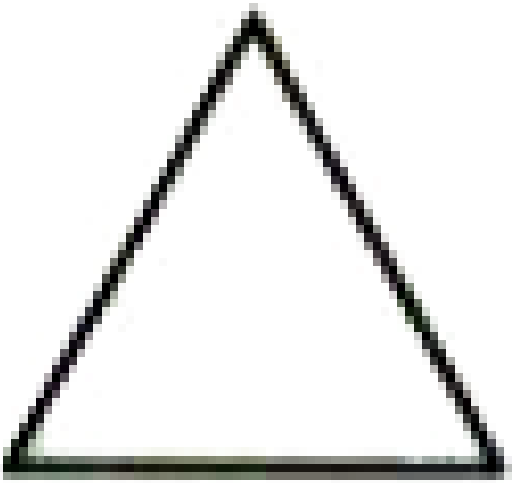
C. Four rays

D. Five line segments

Answer: Points C,P,Q and M

Watch Video Solution

22. Identify which of the following is a polygon.



Watch Video Solution

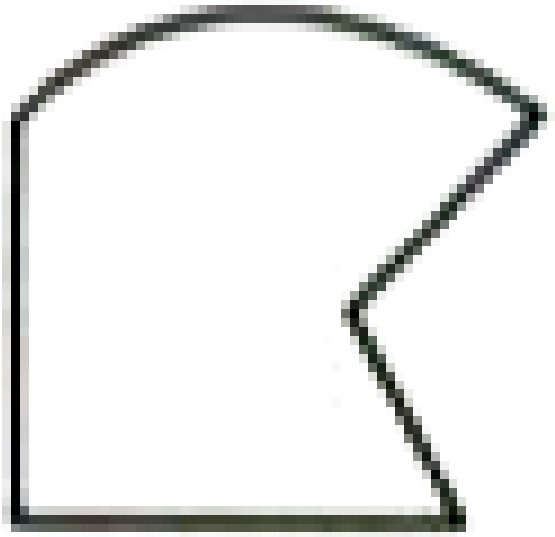
23. Identify which of the following is a polygon.

Watch Video Solution

24. Identify which of the following is a polygon.

Watch Video Solution

25. Identify which of the following is a polygon.

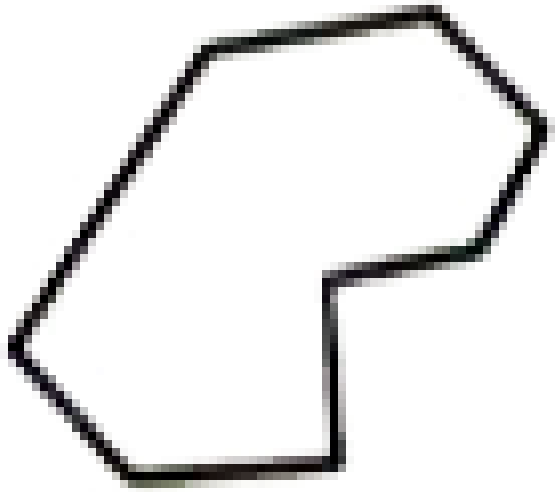


Watch Video Solution

26. Identify which of the following is a polygon.

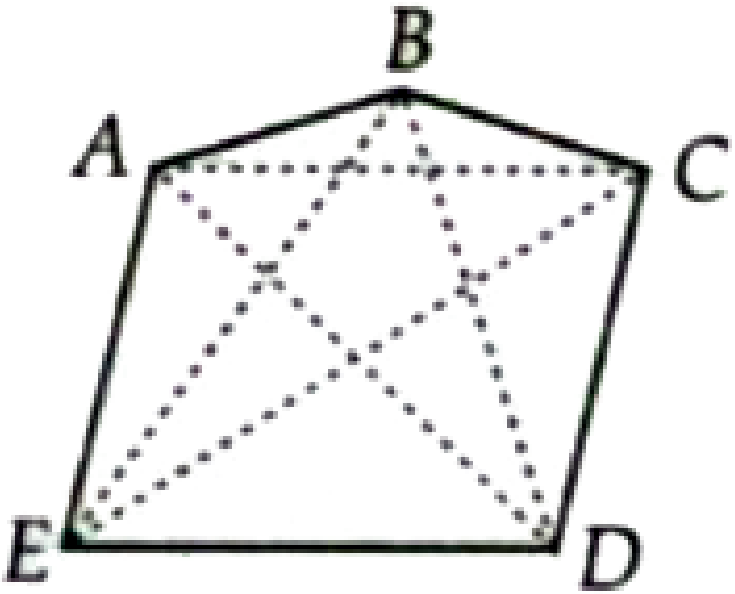
Watch Video Solution

27. Identify which of the following is a polygon.



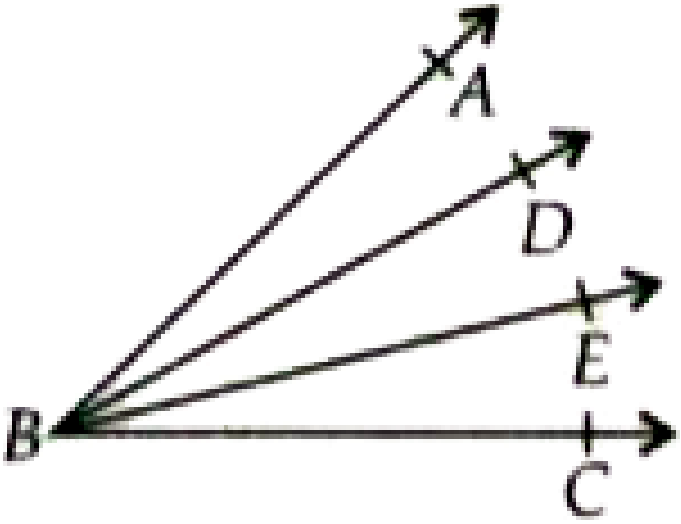
Watch Video Solution

28. Name the sides, vertices and diagonals of the given figure.



Watch Video Solution

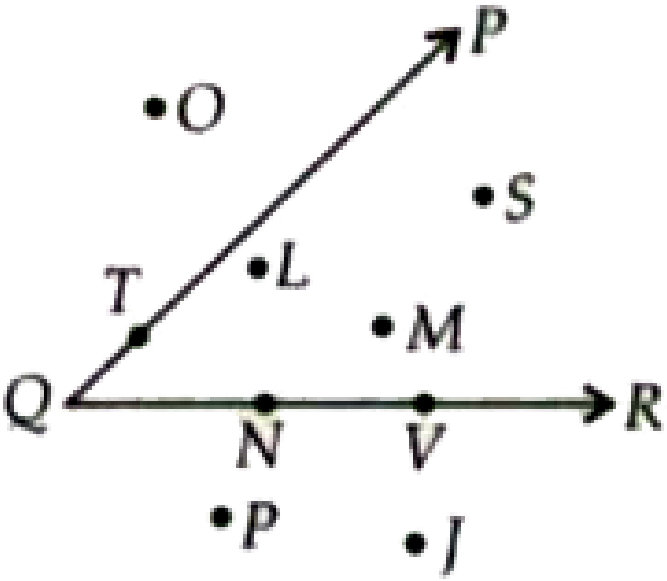
29. Name all the angles formed in the given figure.



Watch Video Solution

30. In the given diagram, name the point(s)

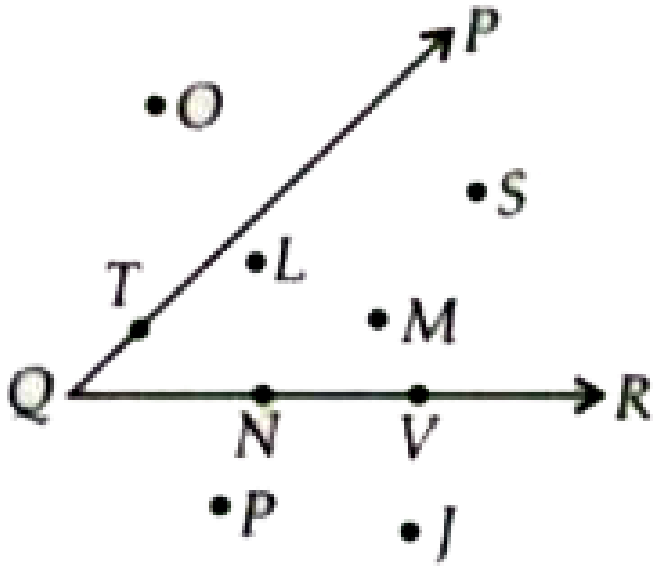
In the interior of $\angle$ PQR



Watch Video Solution

31. In the given diagram, name the point(s)

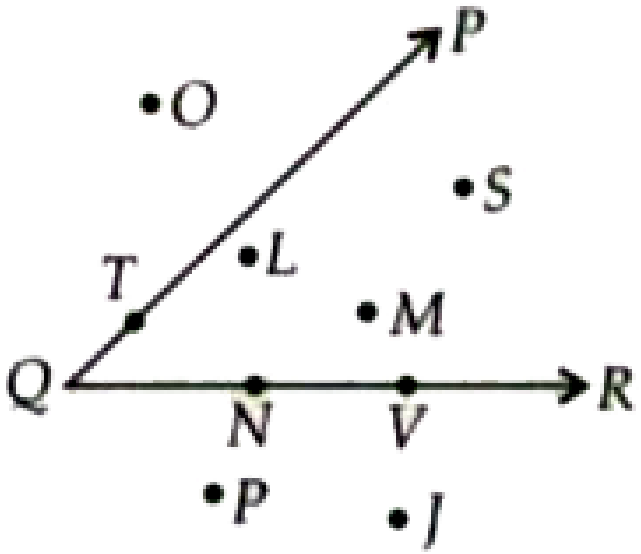
In the exterior of POR



Watch Video Solution

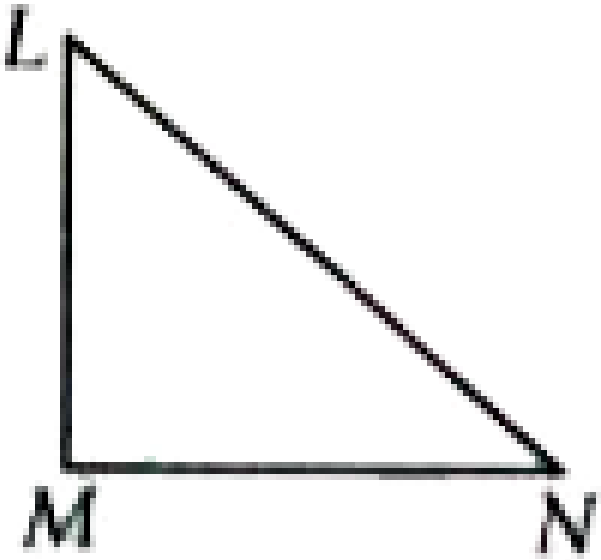
32. In the given diagram, name the point(s)

On the boundary of $\angle PQR$



Watch Video Solution

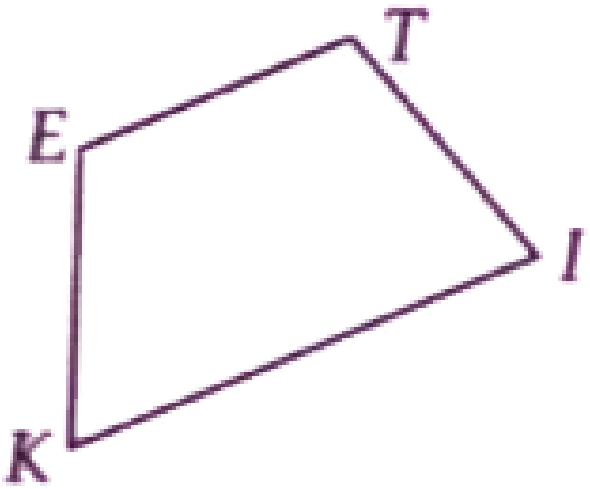
33. Name the sides, vertices and angles of the given triangle.



Watch Video Solution

34. In the given quadrilateral KITE, name all the pairs of

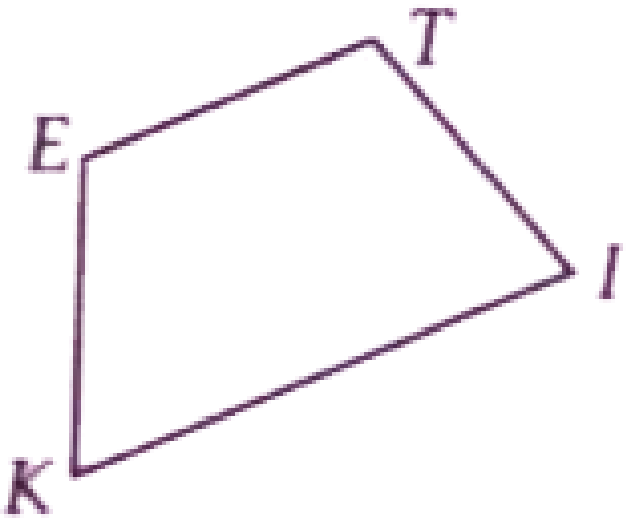
adjacent angles



Watch Video Solution

35. In the given quadrilateral KITE, name all the pairs of

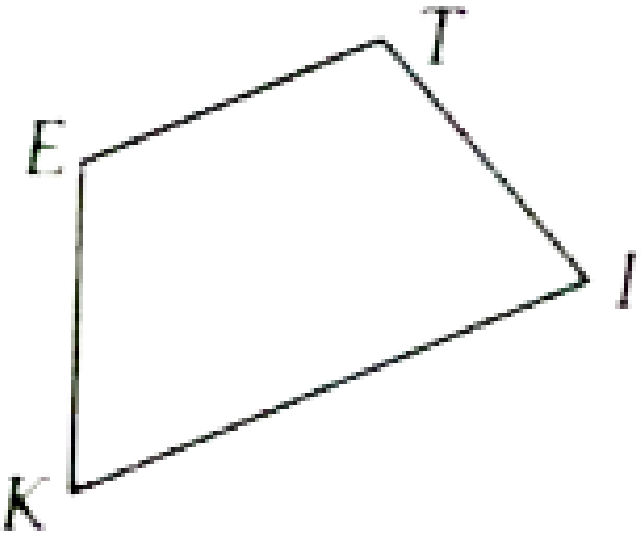
adjacent sides



Watch Video Solution

36. In the given quadrilateral KITE, name all the pairs of

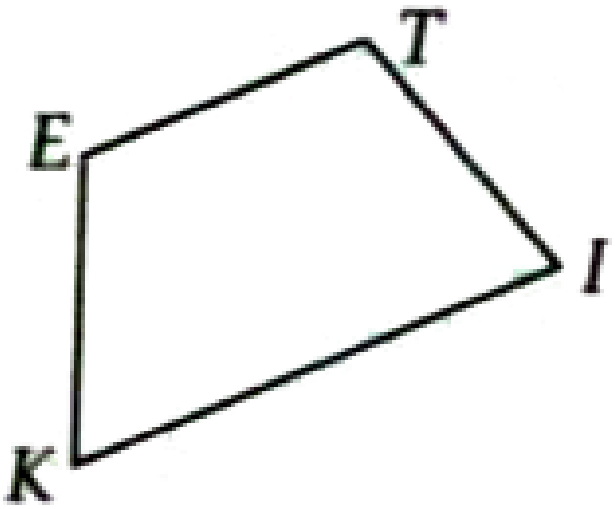
opposite angles



Watch Video Solution

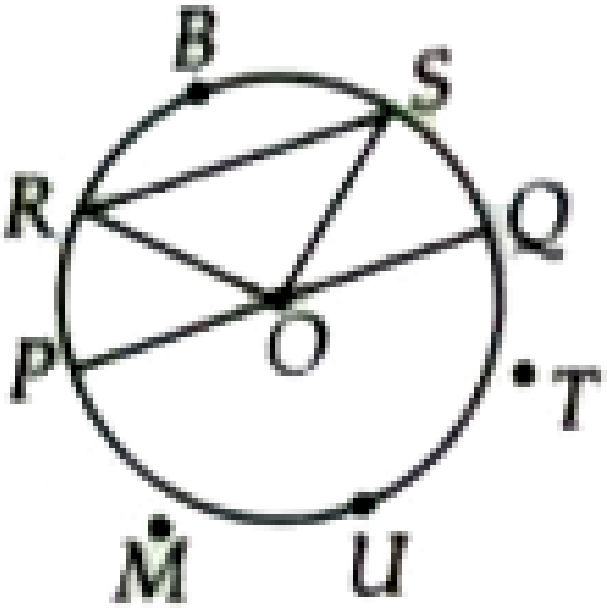
37. In the given quadrilateral KITE, name all the pairs of

opposite sides



Watch Video Solution

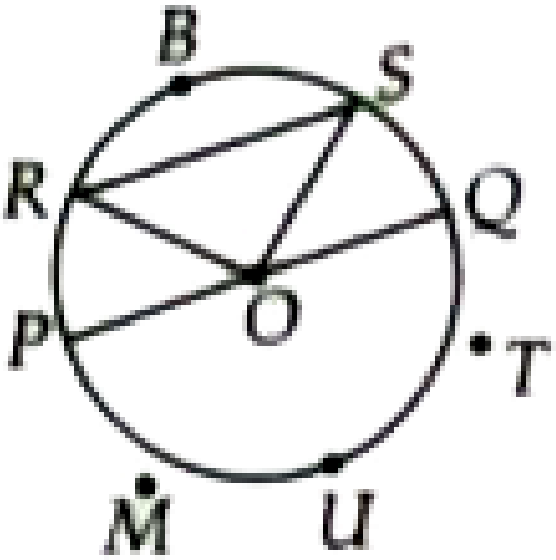
38. In the given figure, name the following:



a segment

Watch Video Solution

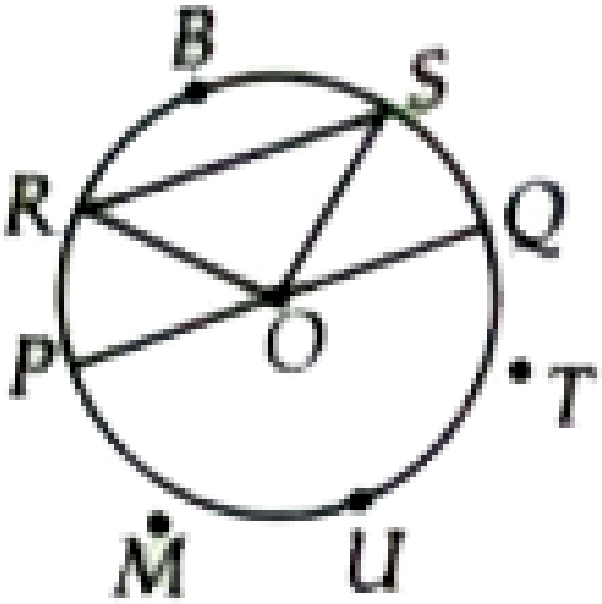
39. In the given figure, name the following:



an arc

Watch Video Solution

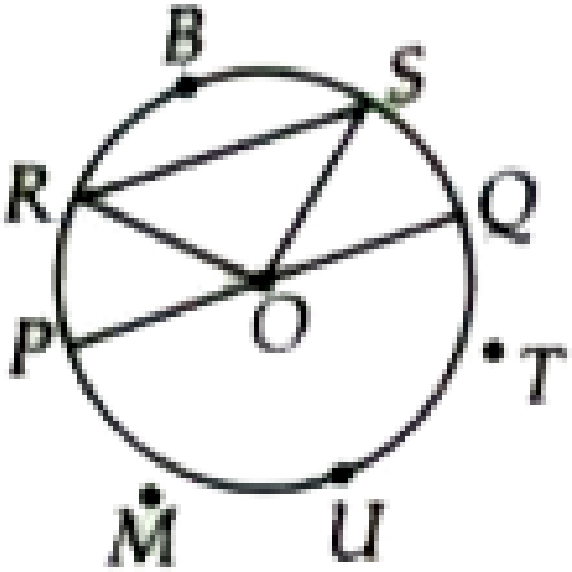
40. In the given figure, name the following:



a chord

Watch Video Solution

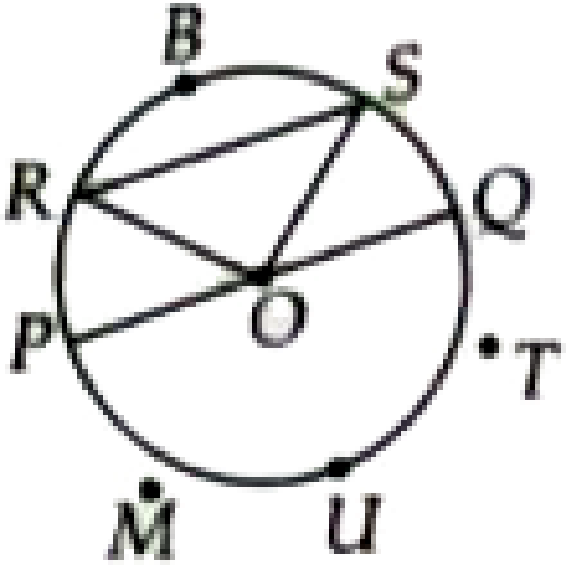
41. In the given figure, name the following:



a radius

Watch Video Solution

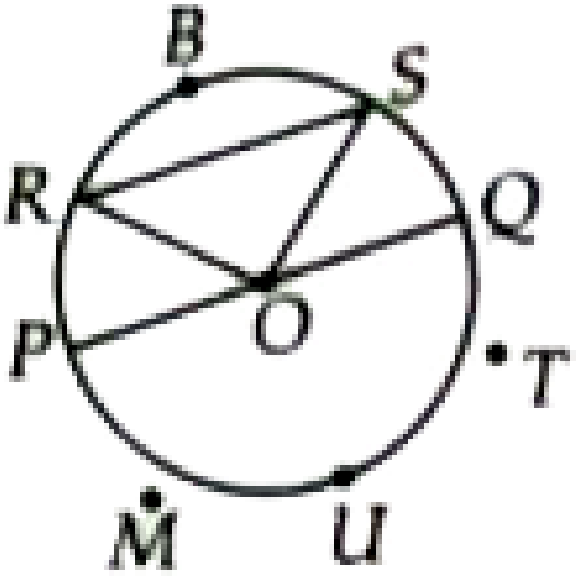
42. In the given figure, name the following:



a sector

Watch Video Solution

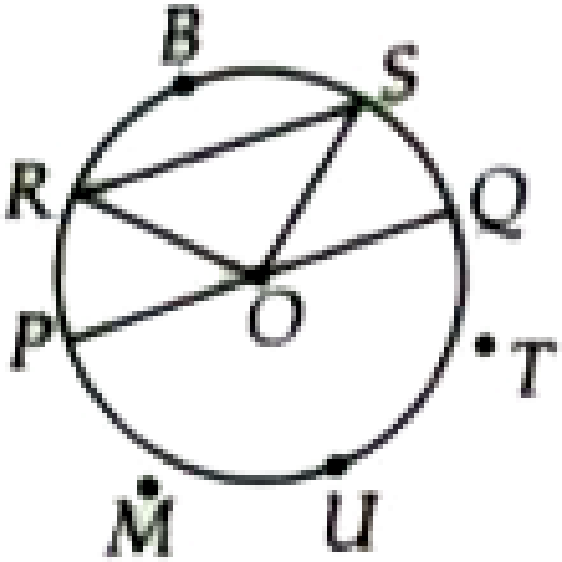
43. In the given figure, name the following:



two exterior points

Watch Video Solution

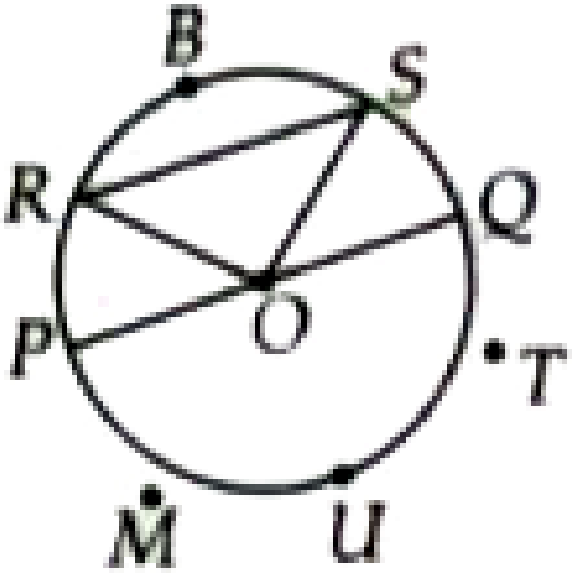
44. In the given figure, name the following:



a diameter

Watch Video Solution

45. In the given figure, name the following:

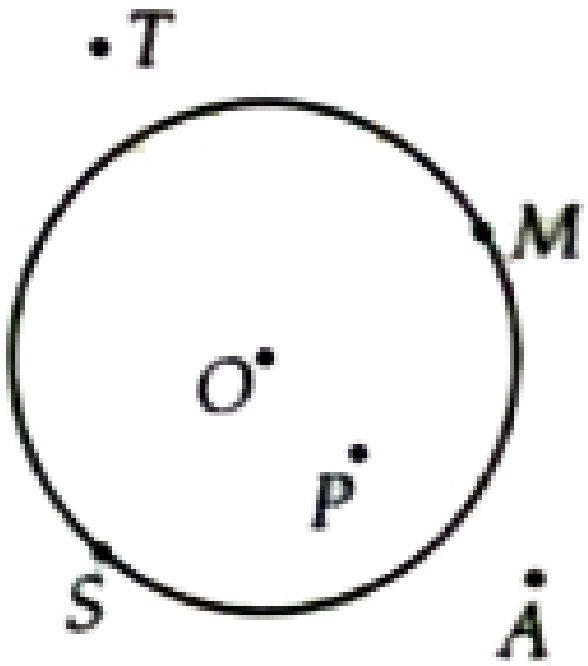


centre

Watch Video Solution

46. Name the points(s)

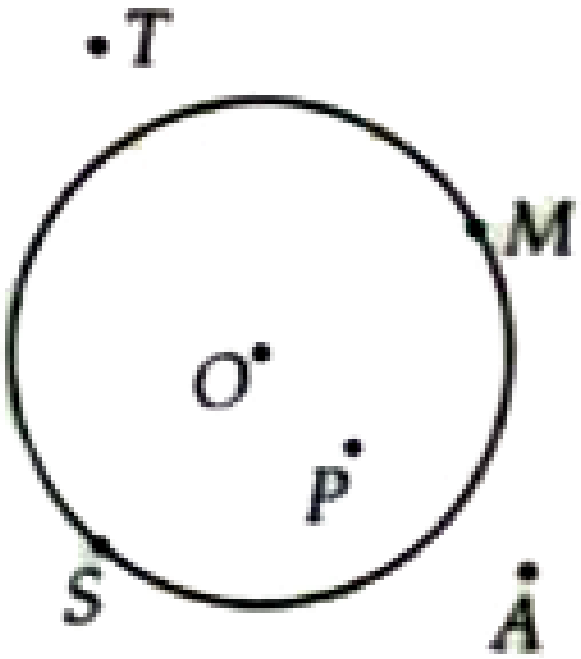
In the interior of the circle



Watch Video Solution

47. Name the points(s)

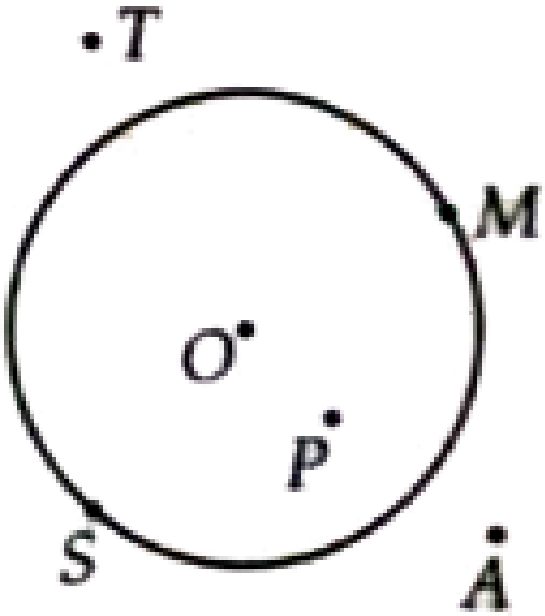
In the exterior of the circle



Watch Video Solution

48. Name the points(s)

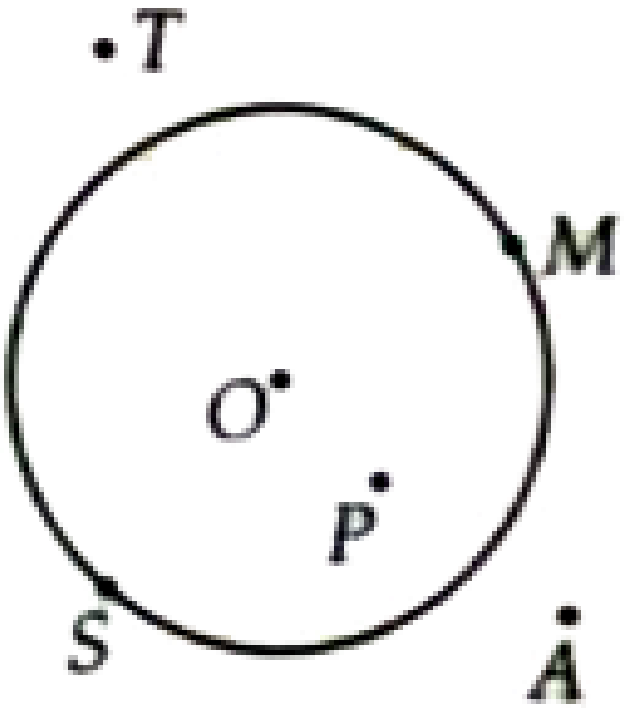
On the boundary of the circle



Watch Video Solution

49. Name the points(s)

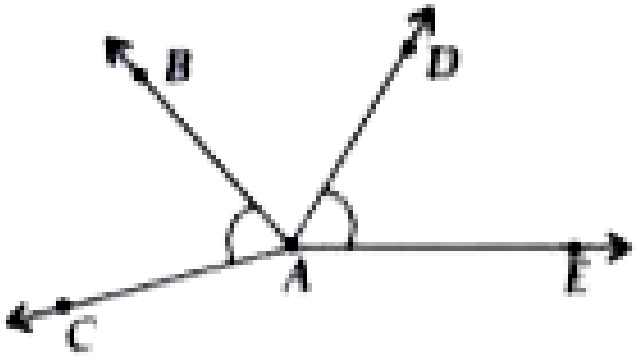
In the region of the circle



Watch Video Solution

Solved Examples

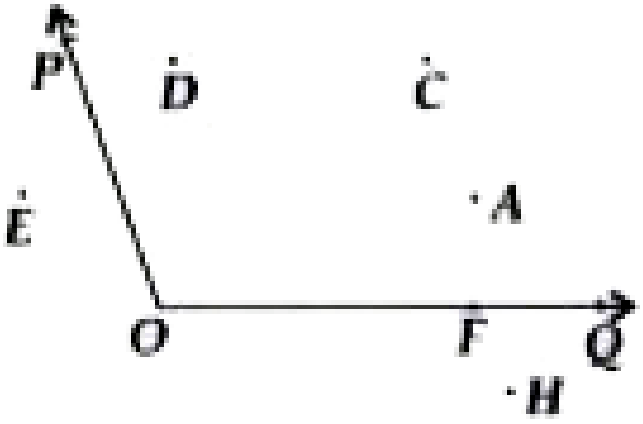
1. The number of common points in the two angles marked in given figure is_____



Watch Video Solution

2. Name the points:

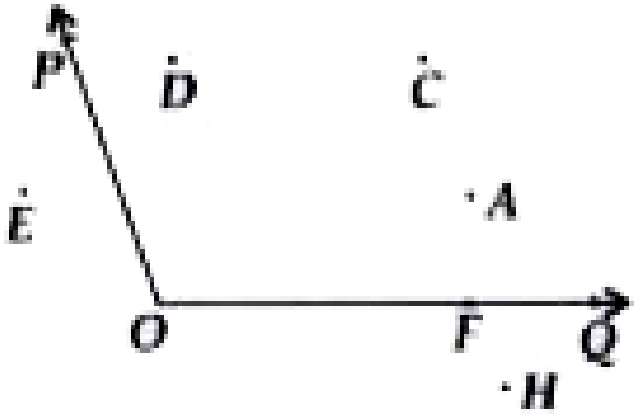
on POQ



Watch Video Solution

3. Name the points:

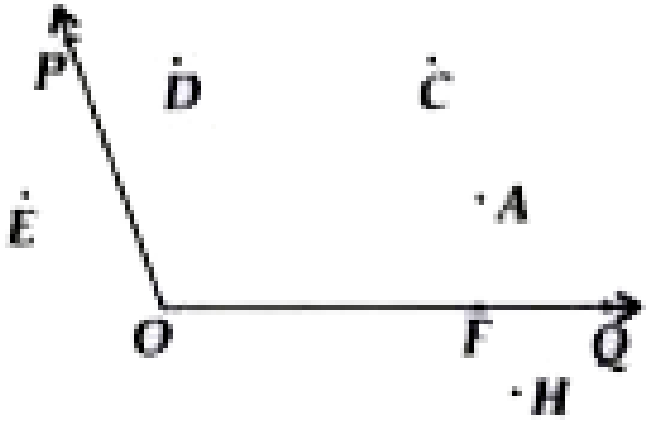
in the interior of ∠POQ



Watch Video Solution

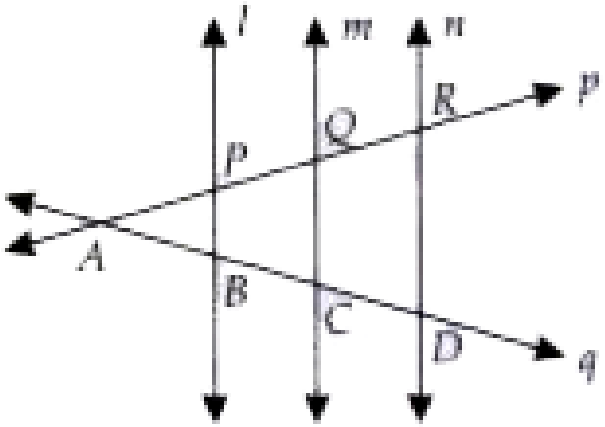
4. Name the points:

in the exterior of ∠ POQ



Watch Video Solution

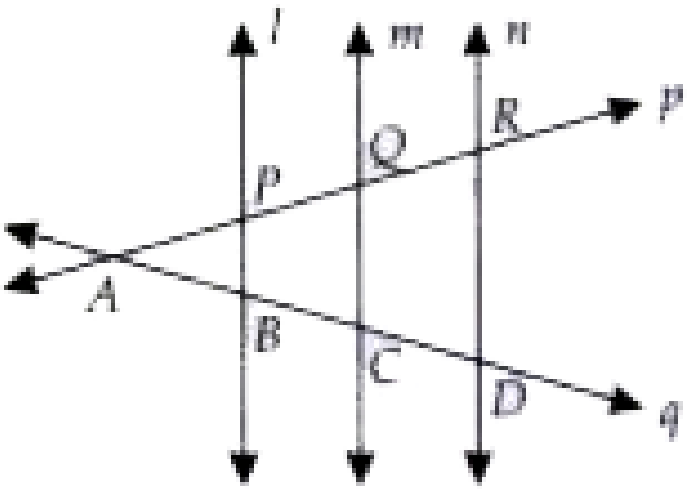
5. In the given figure, name:



all pairs of parallel lines

Watch Video Solution

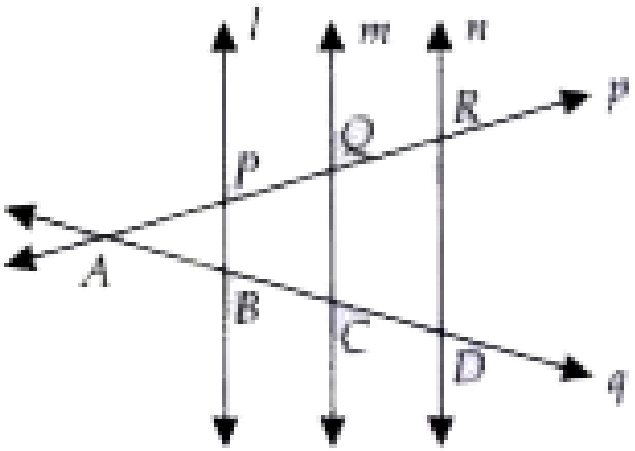
6. In the given figure, name:



all pairs of intersecting lines

Watch Video Solution

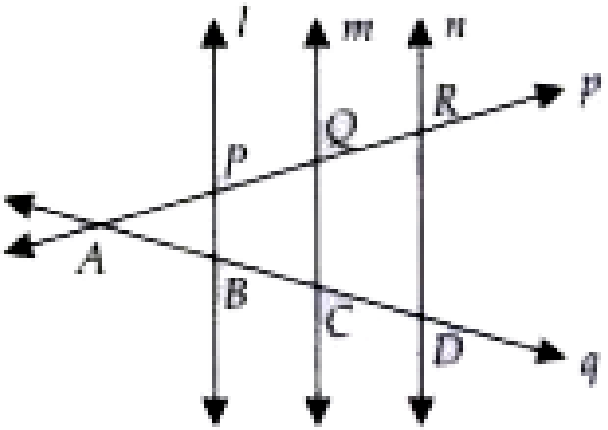
7. In the given figure, name:



lines whose point of intersection is P

Watch Video Solution

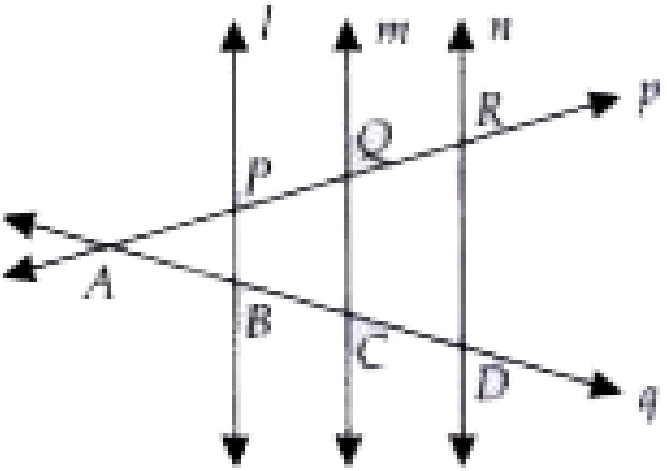
8. In the given figure, name:



lines whose point of intersection is C

Watch Video Solution

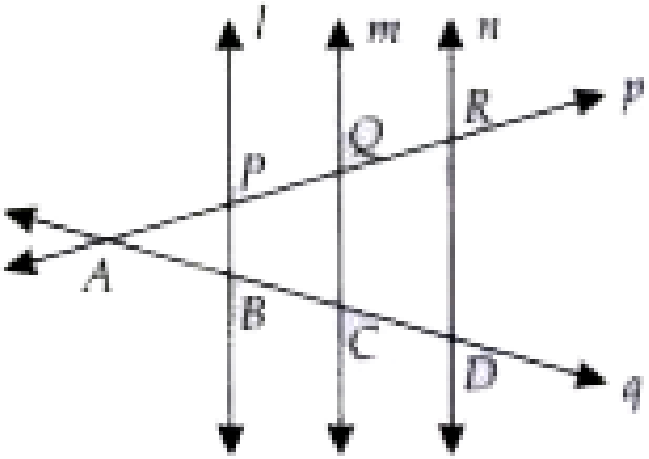
9. In the given figure, name:



lines whose point of intersection is R

Watch Video Solution

10. In the given figure, name:



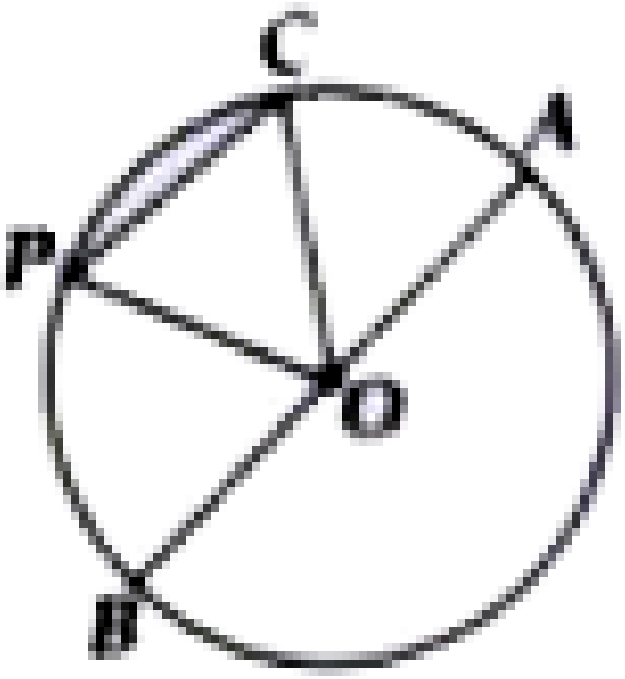
collinear points

Watch Video Solution

11. In given figure, name all rays with initial points as A, B and C respectively.

Watch Video Solution

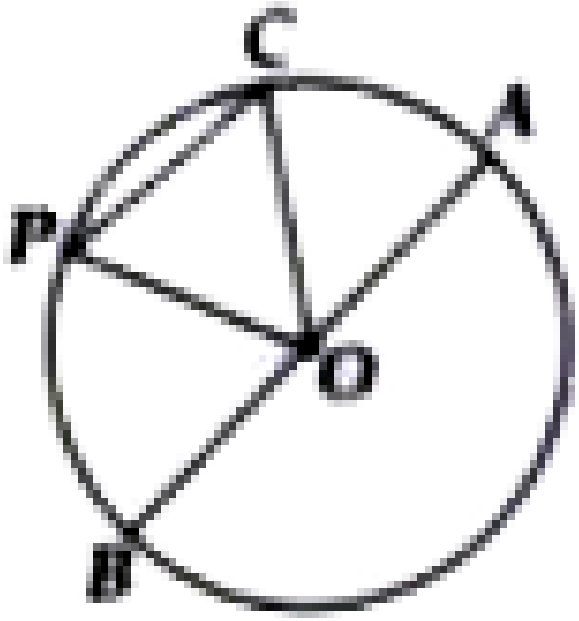
12. In the given figure, O is the centre of the circle.



Name all chords of the circle.

Watch Video Solution

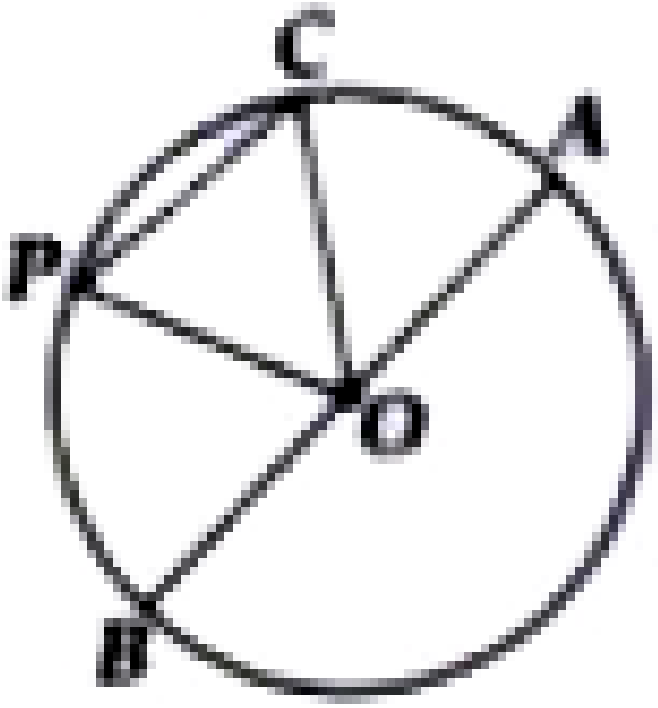
13. In the given figure, O is the centre of the circle.



Name all radii of the circle.

Watch Video Solution

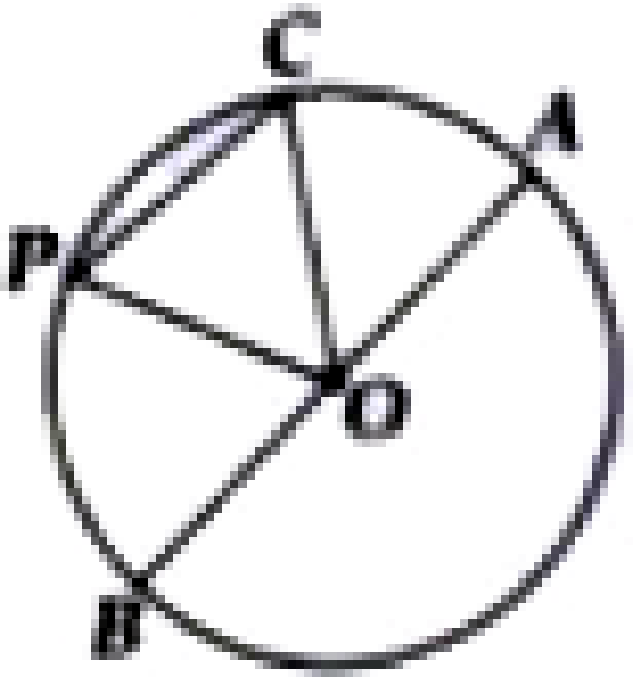
14. In the given figure, O is the centre of the circle.



Name a chord, which is not the diameter of the circle.

Watch Video Solution

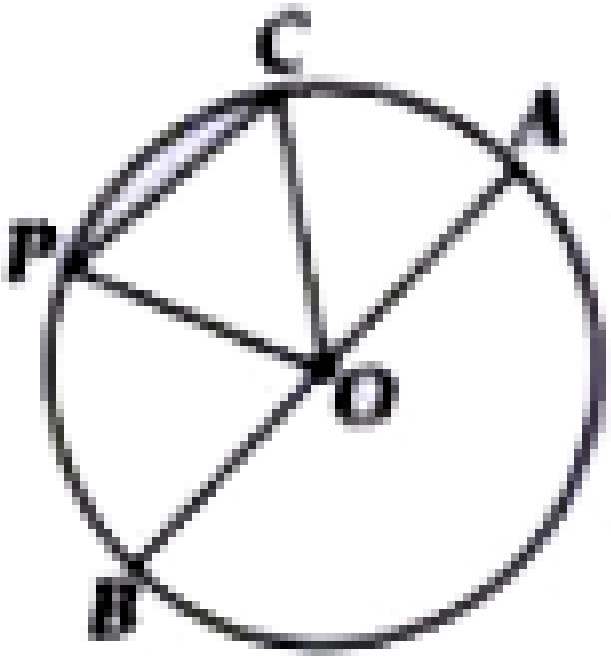
15. In the given figure, O is the centre of the circle.



Shade sectors OAC and OPB.

Watch Video Solution

16. In the given figure, O is the centre of the circle.



Shade the minor segment of the circle formed by CP.

Watch Video Solution

17. Draw a sketch of quadrilateral EFGH. State:

Two pairs of adjacent sides

Watch Video Solution

18. Draw a sketch of quadrilateral EFGH. State:

Vertices

Watch Video Solution

19. Draw a sketch of quadrilateral EFGH. State:

Two pairs of opposite sides

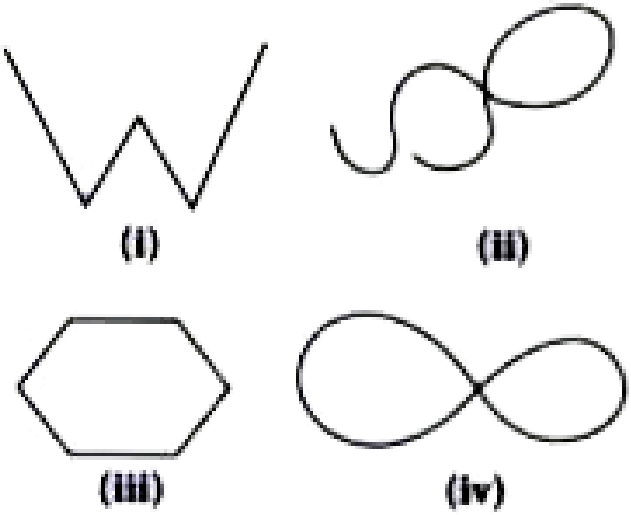
Watch Video Solution

20. Draw a sketch of quadrilateral EFGH. State:

Diagonals

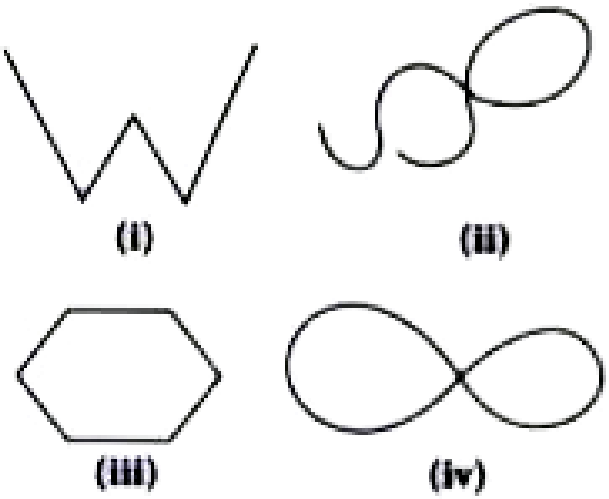
Watch Video Solution

21. Classify the following curves as open or closed.



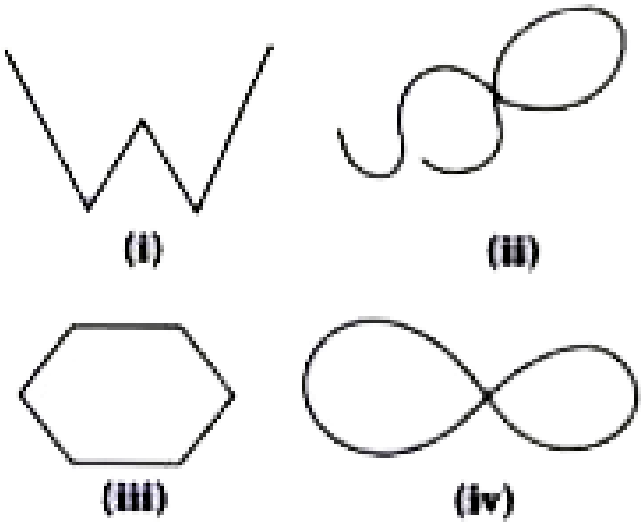
Watch Video Solution

22. Classify the following curves as open or closed.



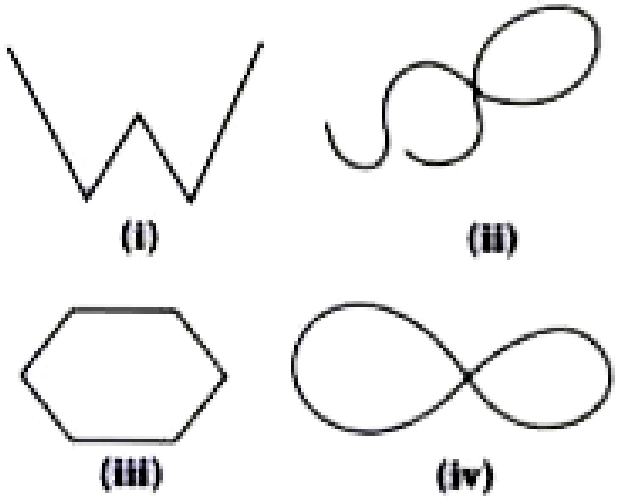
Watch Video Solution

23. Classify the following curves as open or closed.



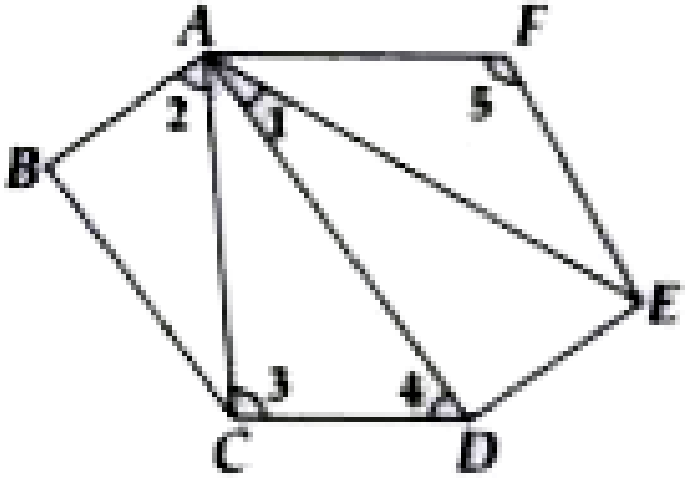
Watch Video Solution

24. Classify the following curves as open or closed.



Watch Video Solution

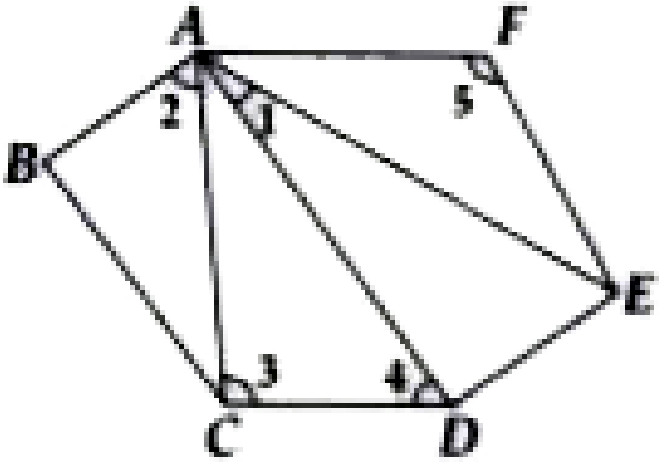
25. In figure, write another name for the following angles:



$\angle 1$

Watch Video Solution

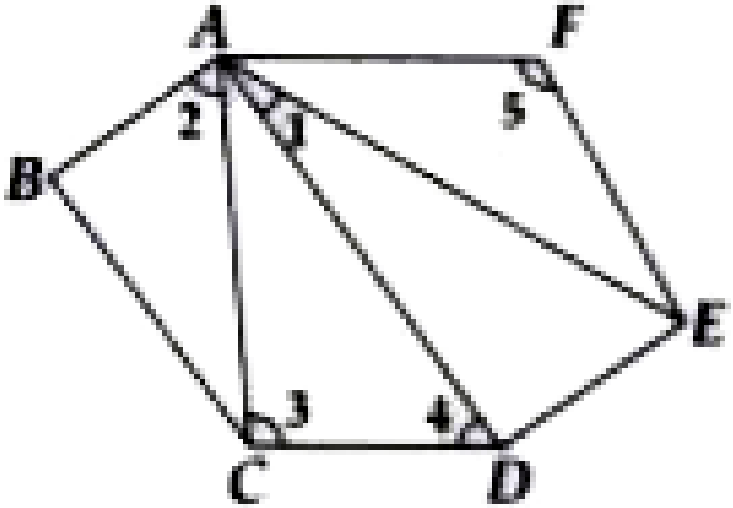
26. In figure, write another name for the following angles:



$\angle 2$

Watch Video Solution

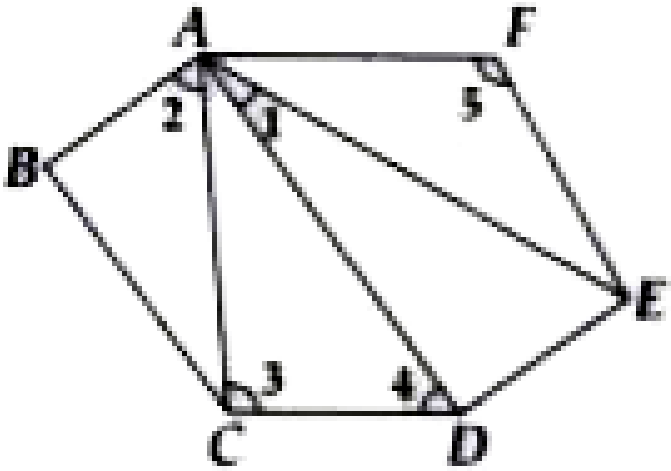
27. In figure, write another name for the following angles:



$\angle 3$

Watch Video Solution

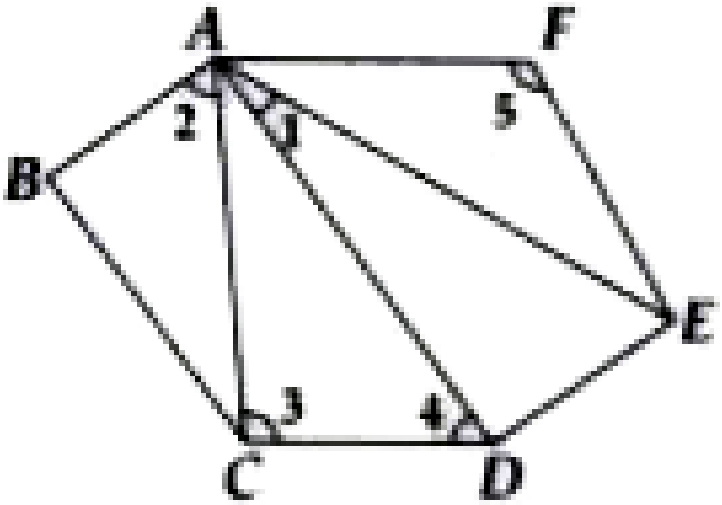
28. In figure, write another name for the following angles:



$\angle 4$

Watch Video Solution

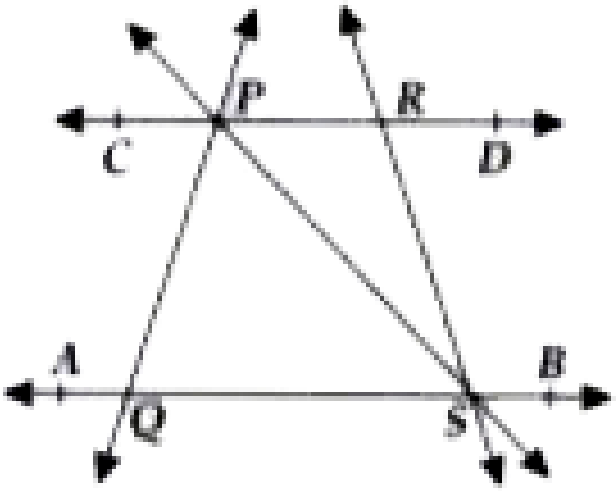
29. In figure, write another name for the following angles:



$\angle 5$

Watch Video Solution

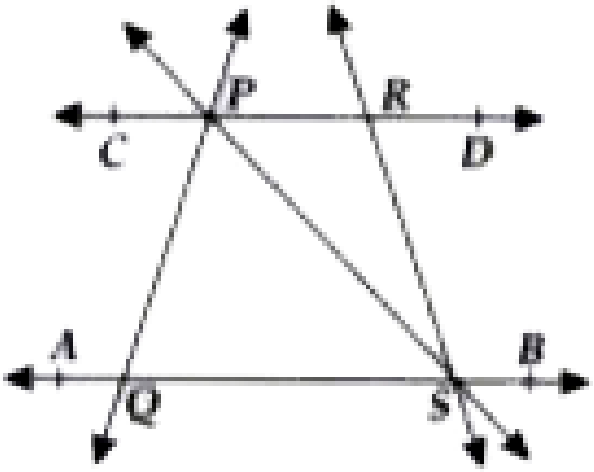
30. In the given figure, name:



four pairs of intersecting lines four collinear points (iii) three non-collinear points (iv) three lines whose point of intersection is p

Watch Video Solution

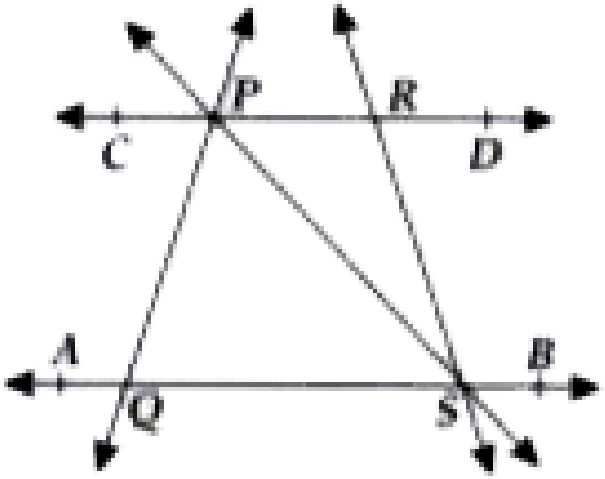
31. In the given figure, name:



four collinear points

Watch Video Solution

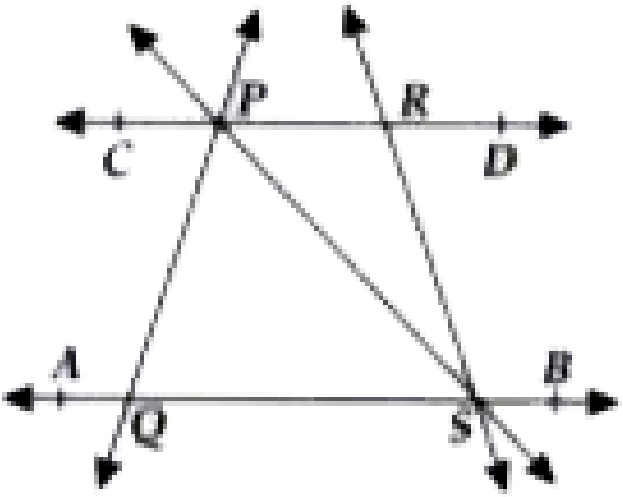
32. In the given figure, name:



three non-collinear points

Watch Video Solution

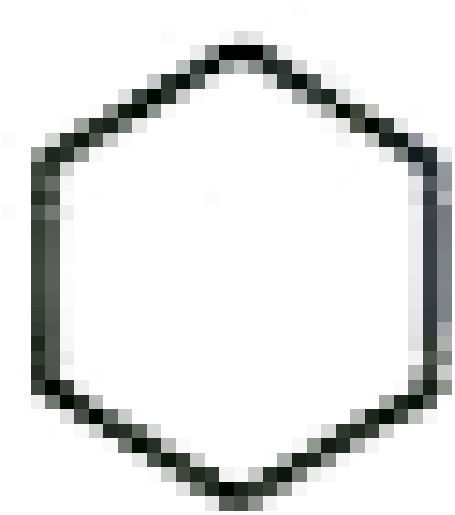
33. In the given figure, name:



three lines whose point of intersection is p

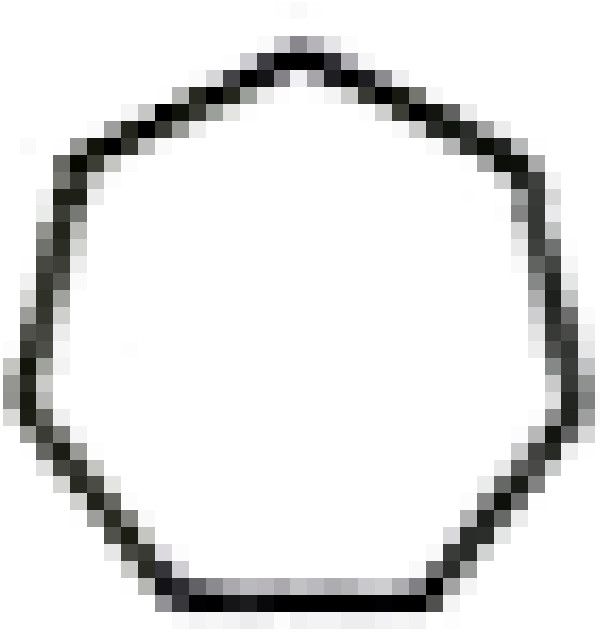
Watch Video Solution

34. How many diagonals does each figure have? Name them.



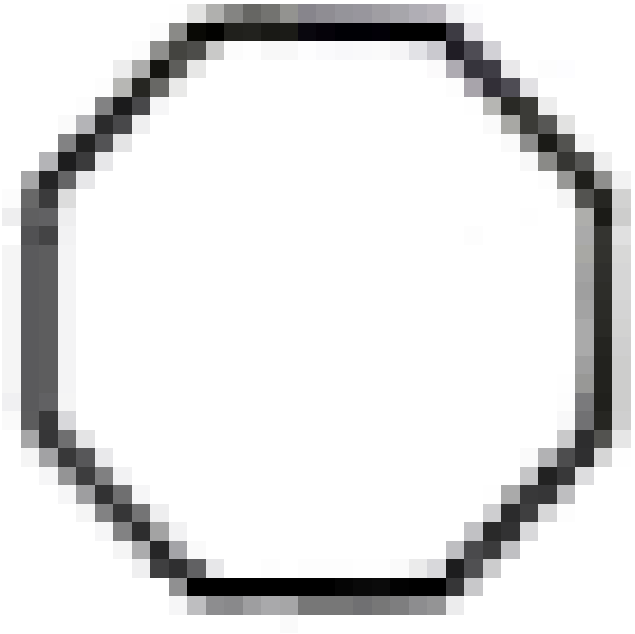
Watch Video Solution

35. How many diagonals does each figure have? Name them.



Watch Video Solution

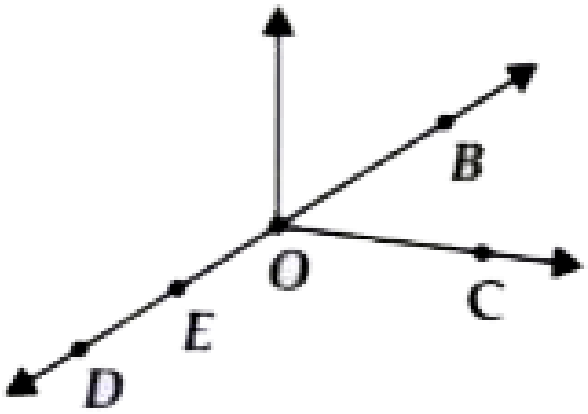
36. How many diagonals does each figure have? Name them.



Watch Video Solution

Ncert Section Exercise 4 1

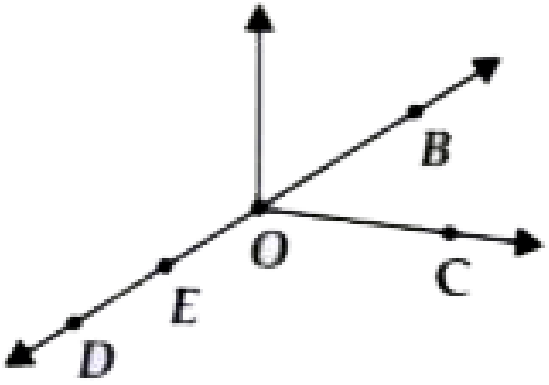
1. Use the figure to name:



five points

Watch Video Solution

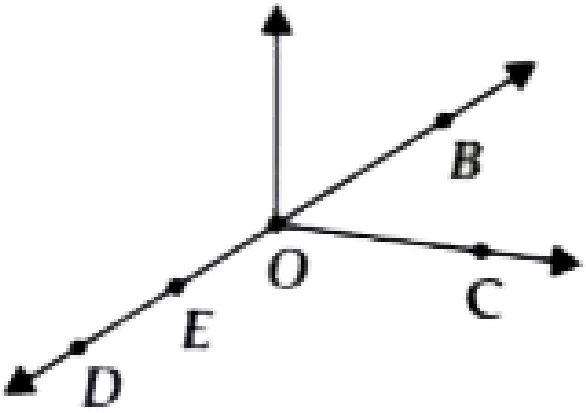
2. Use the figure to name:



a line

Watch Video Solution

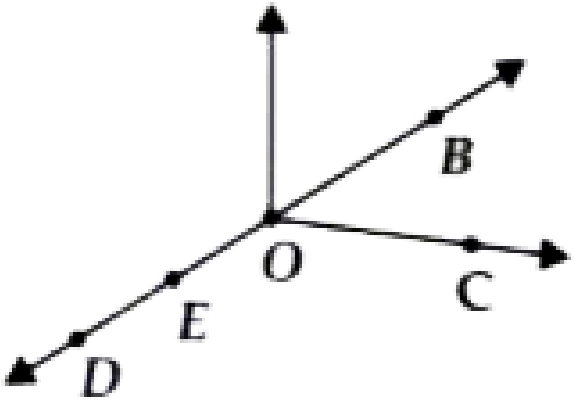
3. Use the figure to name:



four rays

Watch Video Solution

4. Use the figure to name:



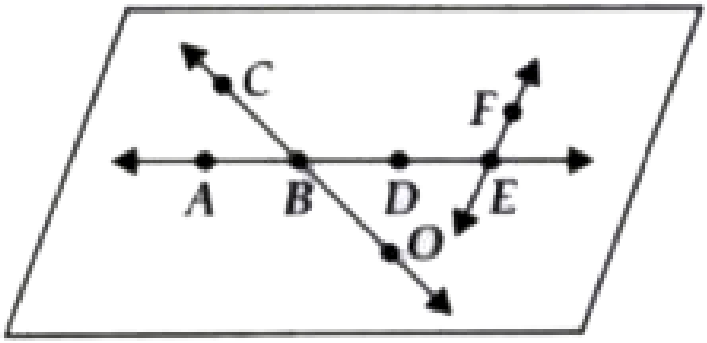
five line segments

Watch Video Solution

5. Name the line given in all possible (twelve) ways, choosing only two letters at a time from the four given.

Watch Video Solution

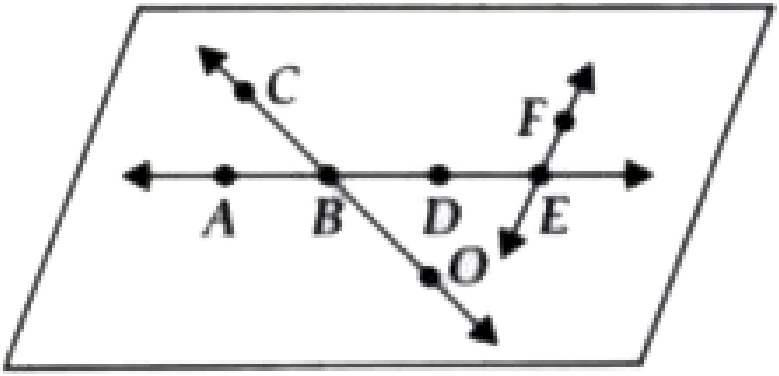
6. Use the figure to name:



line containing point E

Watch Video Solution

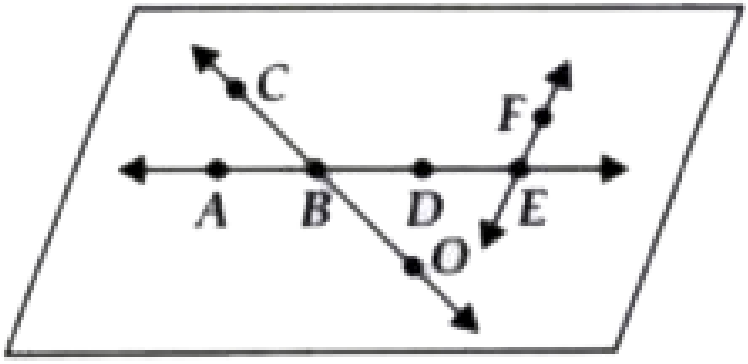
7. Use the figure to name:



line passing through A

Watch Video Solution

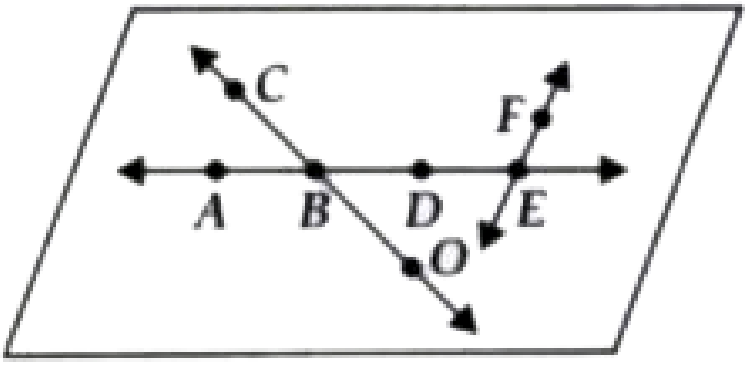
8. Use the figure to name:



line on which O lies

Watch Video Solution

9. Use the figure to name:



Two pairs of intersecting lines

Watch Video Solution

10. How many lines can pass through

one given point?

Watch Video Solution

11. How many lines can pass through

two given points?

Watch Video Solution

12. Draw a rough figure and label suitably in each of the following cases:

Points P lies on $\overline{A}B$

Watch Video Solution

13. Draw a rough figure and label suitably in each of the following cases:

XY and PQ intersect at M

Watch Video Solution

14. Draw a rough figure and label suitably in each of the following cases:

Line l contains E and F but not D

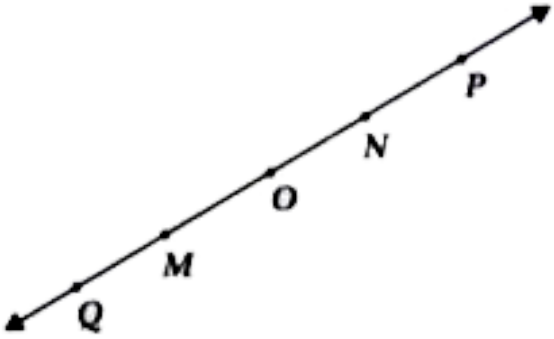
Watch Video Solution

15. Draw a rough figure and label suitably in each of the following cases:

$\overline{O}P$ and $\overline{O}Q$ meet at O

Watch Video Solution

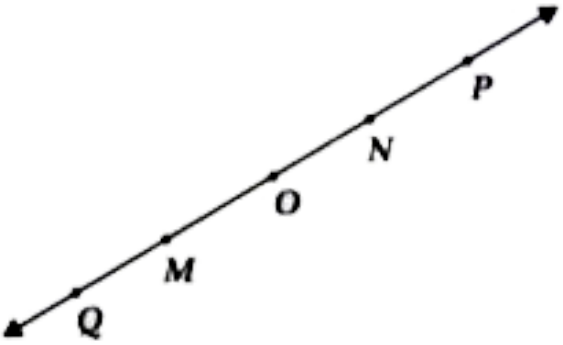
16. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



Q,M, O, N, P are points on the line MN.

Watch Video Solution

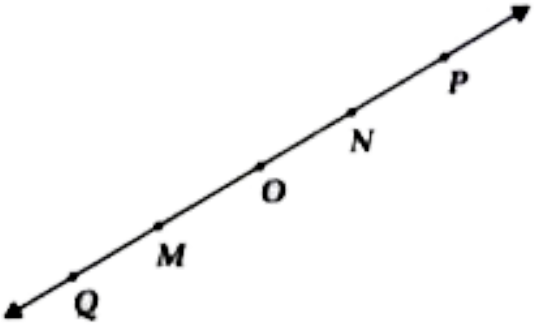
17. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



M, O, N are points on a line segment $\overline{MN}$

Watch Video Solution

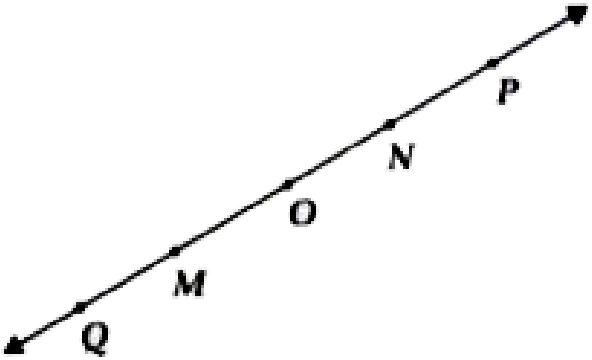
18. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



M and N are end points of line segment $\overline{M}N$.

Watch Video Solution

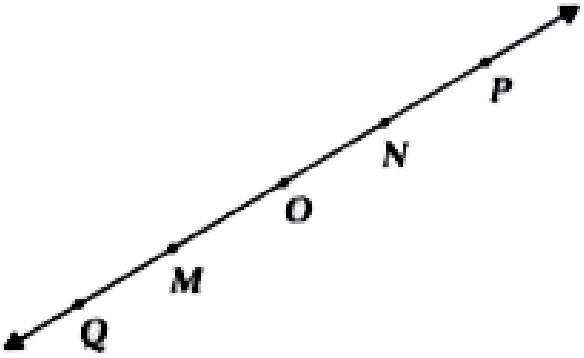
19. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



O and N are end points of line segment $\overline{O}P$.

Watch Video Solution

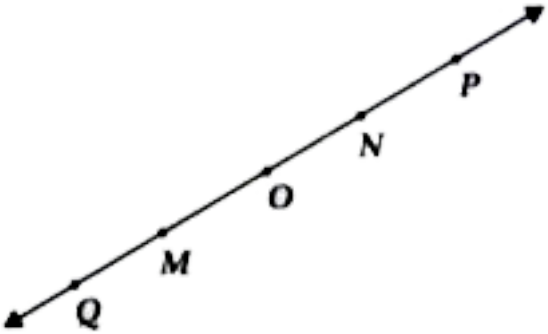
20. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



M is one of the end points of line segment $\overline{QO}$.

Watch Video Solution

21. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



M is point on ray $\overline{O}P$.

Watch Video Solution

22. Consider the following figure of line MN.Say whether following statements are true or false in context of the given gifure.

M is point on ray $\overrightarrow{OP}$.

Watch Video Solution

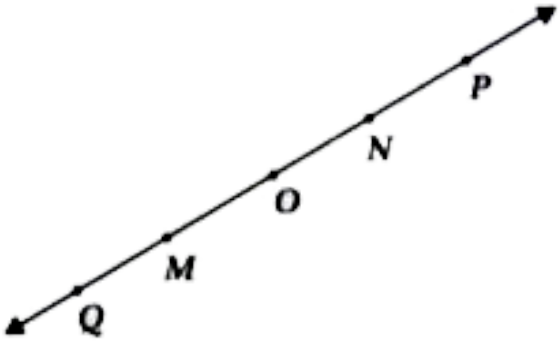
23. Consider the following figure of line MN.Say whether following statements are true or false in context of the given gifure.

M is point on ray $\overrightarrow{OP}$.

Watch Video Solution

Watch Video Solution

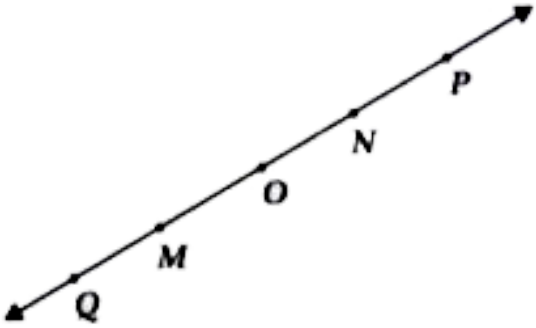
24. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



Ray $\overline{O}M$ is not opposite to ray $\overline{O}P$.

Watch Video Solution

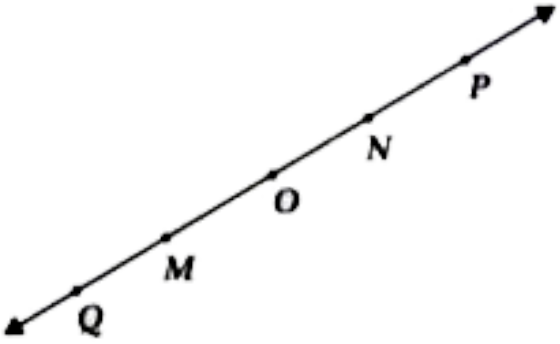
25. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



O is not an initial point of $\overline{O}P$

Watch Video Solution

26. Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure



N is the initial point of $\overline{N}P$ and $\overline{N}M$.

Watch Video Solution

Ncert Section Exercise 4 2

1. Classify the following curves as

Open

Watch Video Solution

2. Classify the following curves as

Closed.

Watch Video Solution

3. Draw rough diagrams to illustrate the following:

Open curve

Watch Video Solution

4. Draw rough diagrams to illustrate the following:

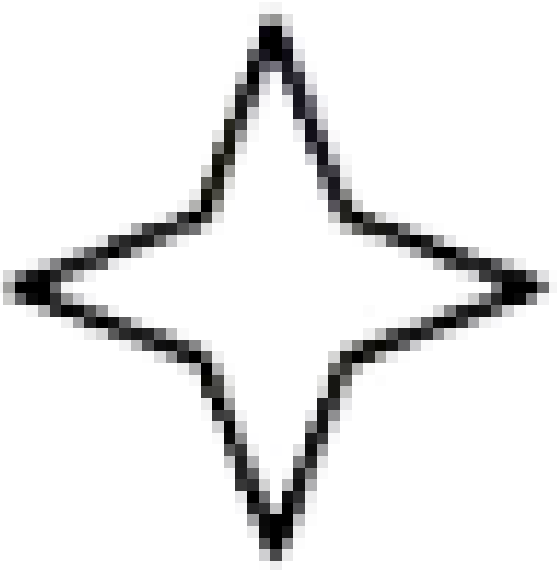
Closed curve.

Watch Video Solution

5. Draw any polygon and shade its interior.

Watch Video Solution

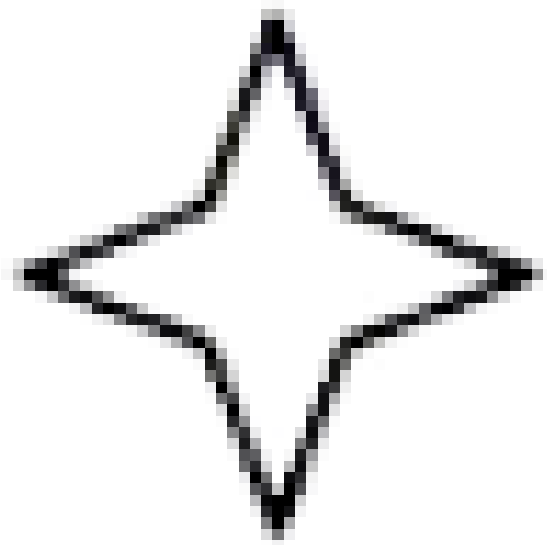
6. Consider the given figure and answer the questions:



Is it a curve?

Watch Video Solution

7. Consider the given figure and answer the questions:



Is it closed?

Watch Video Solution

8. Illustrate, if possible, each one of the following with a rough diagram:

A closed curve that is not a polygon.

Watch Video Solution

9. Illustrate, if possible, each one of the following with a rough diagram:

An open curve made up entirely of line. segments.

Watch Video Solution

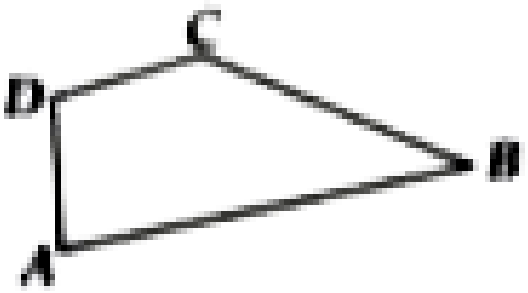
10. Illustrate, if possible, each one of the following with a rough diagram:

A polygon with two sides.

Watch Video Solution

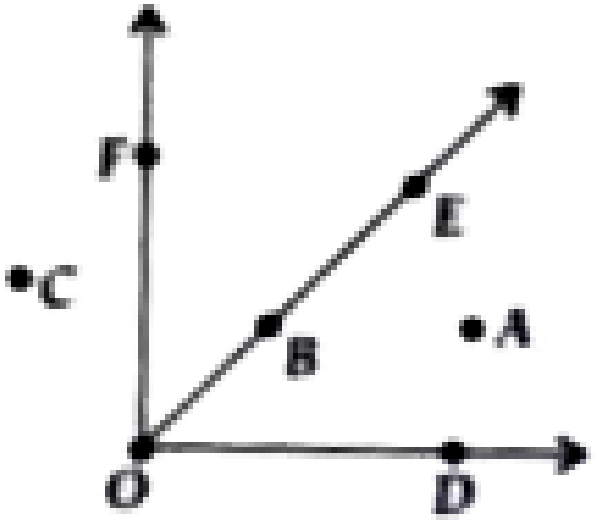
Ncert Section Exercise 4 3

1. Name the angles in the given figure.



Watch Video Solution

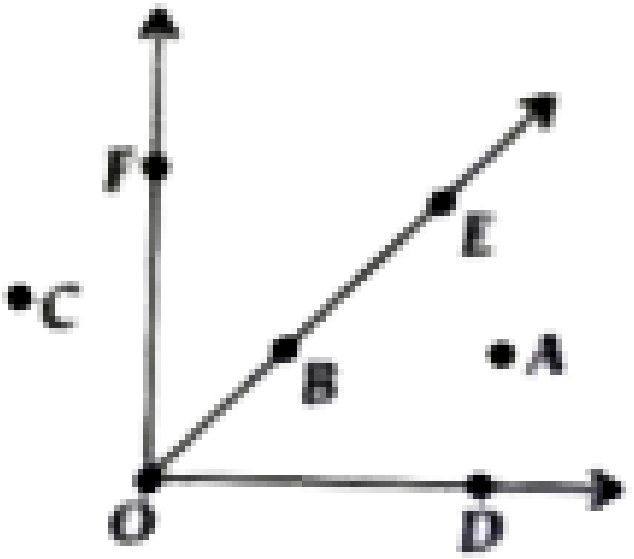
2. In the given diagram, name the point(s)



In the interior of DOE

Watch Video Solution

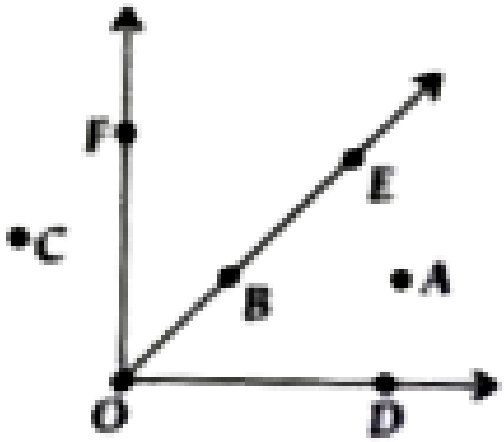
3. In the given diagram, name the point(s)



In the exterior of $\angle EOF$

Watch Video Solution

4. In the given diagram, name the point(s)In the given diagram, name the point(s)



On $\angle EOF$

Watch Video Solution

5. Draw rough diagrams of two angles such that they have

One point in common.

Watch Video Solution

6. Draw rough diagrams of two angles such that they have

Two points in common.

Watch Video Solution

7. Draw rough diagrams of two angles such that they have

Three points in common.

Watch Video Solution

8. Draw rough diagrams of two angles such that they have

Four points in common.

Watch Video Solution

9. Draw rough diagrams of two angles such that they have

One ray in common.

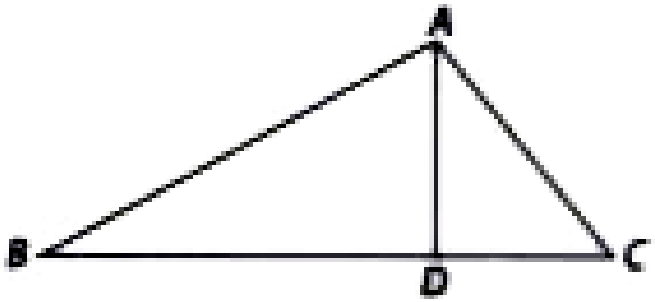
Watch Video Solution

Ncert Section Exercise 4 4

1. Draw a rough sketch of a triangle ABC. Mark a point P in its interior and a point Q in its exterior.

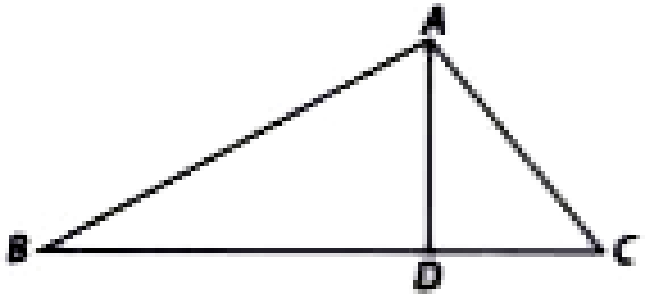
Watch Video Solution

2. Identify three triangles in the figure. In the given diagram, name the point(s)



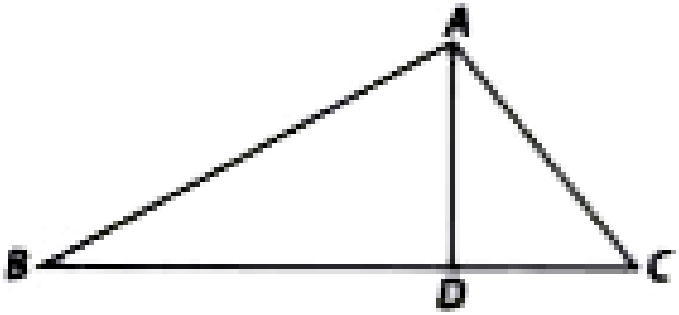
Watch Video Solution

3. Write the names of seven angles in the given diagram



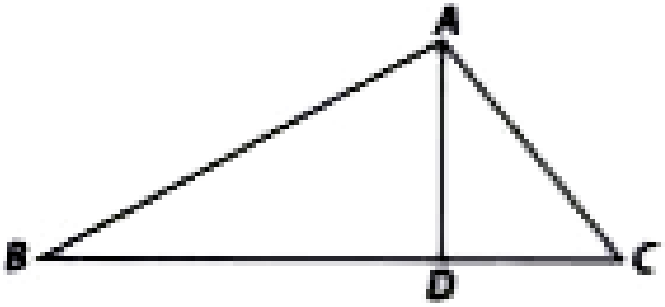
Watch Video Solution

4. Write the names of six line segments. In the given diagram, name the point(s)



Watch Video Solution

5. Which two triangles have $\angle B$ as common?



Watch Video Solution

Ncert Section Exercise 4 5

1. Draw a rough sketch of a quadrilateral PQRS. Draw its diagonals. Name them. Is the meeting point of the diagonals in the interior or exterior of the quadrilateral?

Watch Video Solution

2. Draw a rough sketch of a quadrilateral KLMN. State,

two pairs of opposite sides,

Watch Video Solution

3. Draw a rough sketch of a quadrilateral KLMN. State,

two pairs of opposite angles,

Watch Video Solution

4. Draw a rough sketch of a quadrilateral KLMN. State,

two pairs of adjacent sides,

Watch Video Solution

5. Draw a rough sketch of a quadrilateral KLMN. State,

two pairs of adjacent angles.

Watch Video Solution

6. Investigate:

Use strips nad fasteners to make a triangle and a quadrilateral.

Try to push inward at any one vertex of the triangle.Do the same to the quadrilateral.

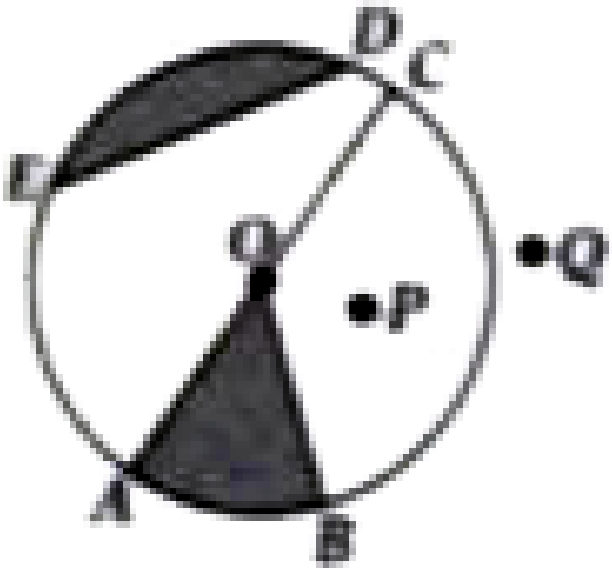
Is the triangle distorted ?Is the quadrilateral distorted?Is the triangle rigid?

Why is it that structures like electric towers make use of triangular shapes and not quadrilaterals?

Watch Video Solution

Ncert Section Exercise 4 6

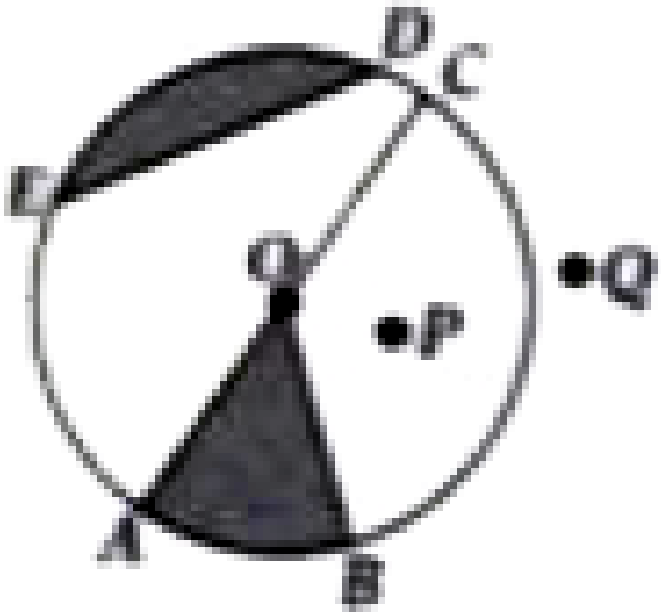
1. From the figure, identify: In the given diagram, name the point(s)



the centre of circle

Watch Video Solution

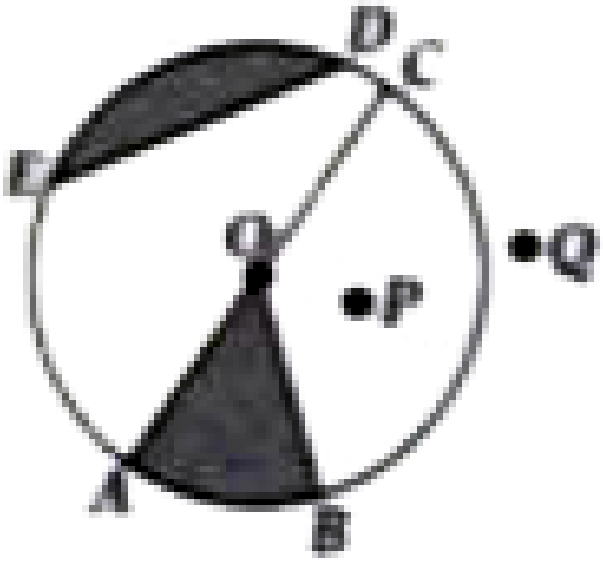
2. From the figure, identify: In the given diagram, name the point(s)



three radii

Watch Video Solution

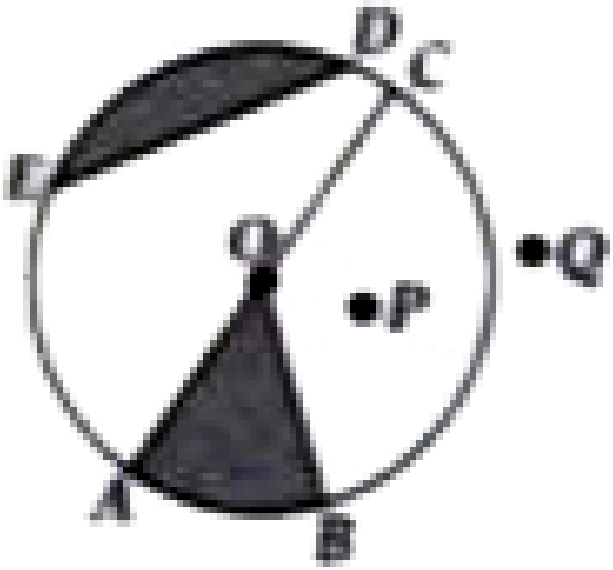
3. From the figure, identify: In the given diagram, name the point(s)



a diameter

Watch Video Solution

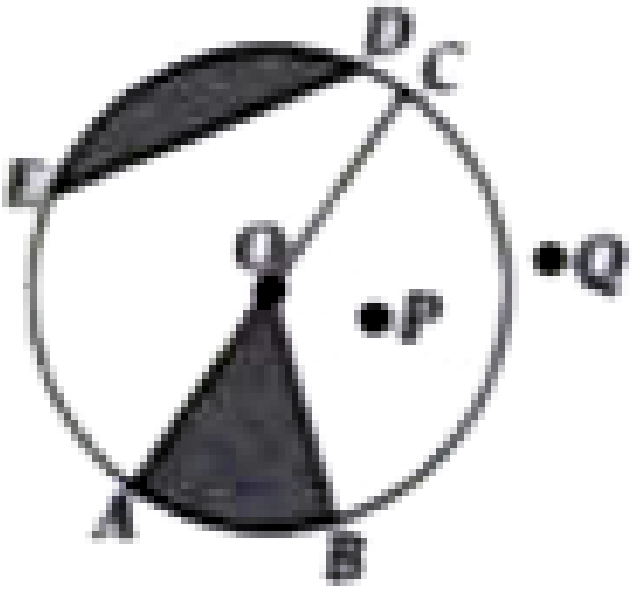
4. From the figure, identify: In the given diagram, name the point(s)



a chord

Watch Video Solution

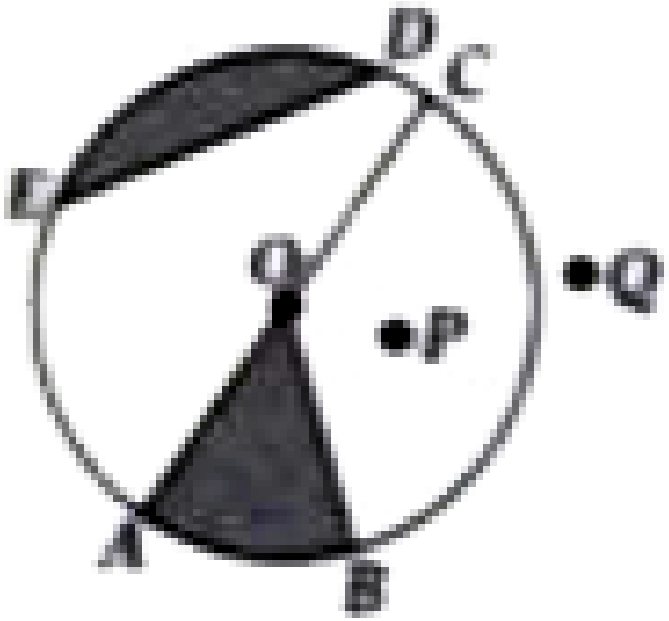
5. From the figure, identify: In the given diagram, name the point(s)



two points in the interior

Watch Video Solution

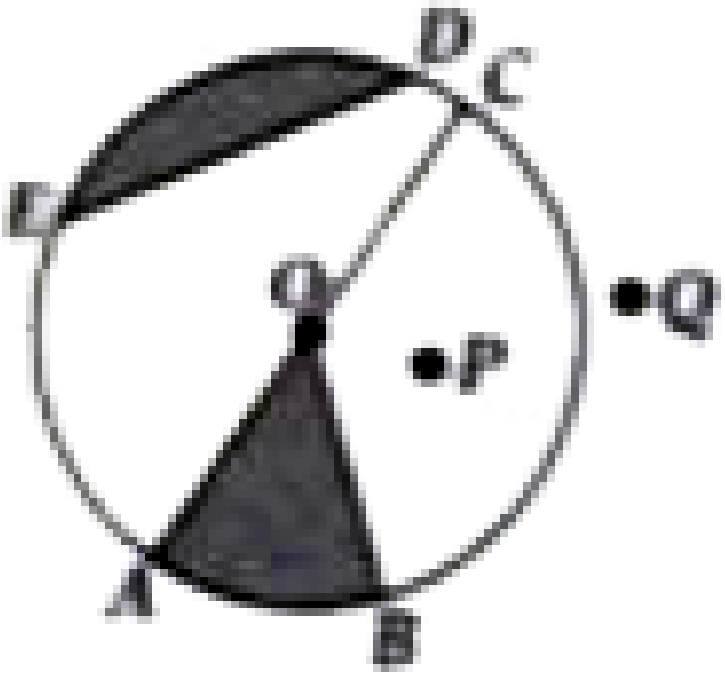
6. From the figure, identify: In the given diagram, name the point(s)



a point the exterior

Watch Video Solution

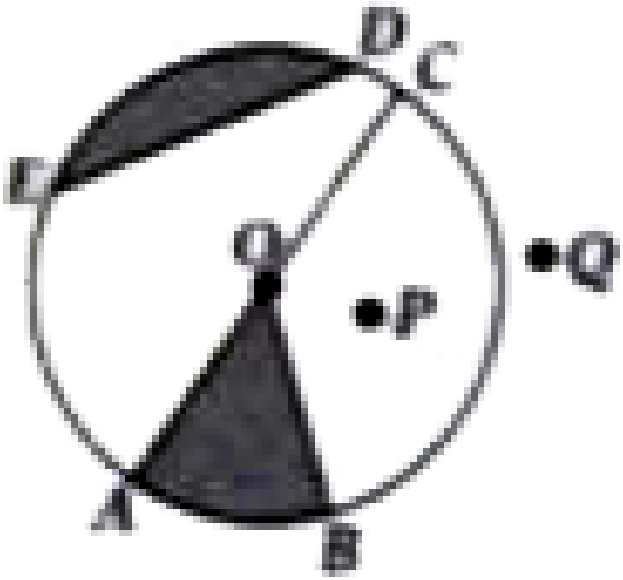
7. From the figure, identify: In the given diagram, name the point(s)



a sector

Watch Video Solution

8. From the figure, identify: In the given diagram, name the point(s)



a segment,

Watch Video Solution

9. Is every diameter of a circle also a chord?

Watch Video Solution

10. Is every chord of a circle also a diameter?

Watch Video Solution

11. Draw any circle and mark

its centre

Watch Video Solution

12. Draw any circle and mark

a radius

Watch Video Solution

13. Draw any circle and mark

a diameter

Watch Video Solution

14. Draw any circle and mark

a sector

Watch Video Solution

15. Draw any circle and mark

a segment

Watch Video Solution

16. Draw any circle and mark

a point in its interior

Watch Video Solution

17. Draw any circle and mark

a point in its exterior

Watch Video Solution

18. Draw any circle and mark

an arc

Watch Video Solution

19. Say true or false :

Two diameters of a circle will necessarily intersect.

Watch Video Solution

20. Say true or false :

The centre of a circle is always in its interior.

Watch Video Solution

Exercise Mcq Level 1

1. A line segment.___

A. Has only one end point

B. Has two end points

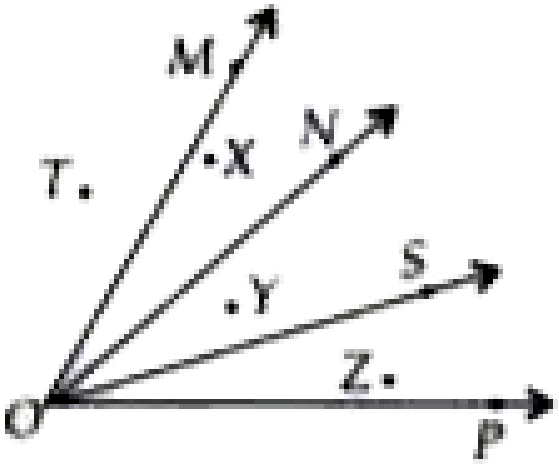
C. Has length and width

D. Extend endlessly in both directions

Answer: b

Watch Video Solution

2. The point that lies in the interior of $\angle SOP$ is M



Watch Video Solution

3. A triangle is a polygon with__

A. 2 sides

B. 3 sides

C. 4 sides

D. 5 sides

Answer: b

Watch Video Solution

4. A quadrilateral has___

A. 2 diagonals, 3 angles

B. 4 diagonals, 2 angles

C. 2 diagonals, 2 angles

D. 2 diagonals, 4 angles

Answer: d

Watch Video Solution

5. Where does the vertex of an angle lie?

A. In its interior

B. In its exterior

C. On the angle

D. None of these

Answer: c

Watch Video Solution

6. A chord that passes through the centre of a circle is___

A. Diameter

B. Segment

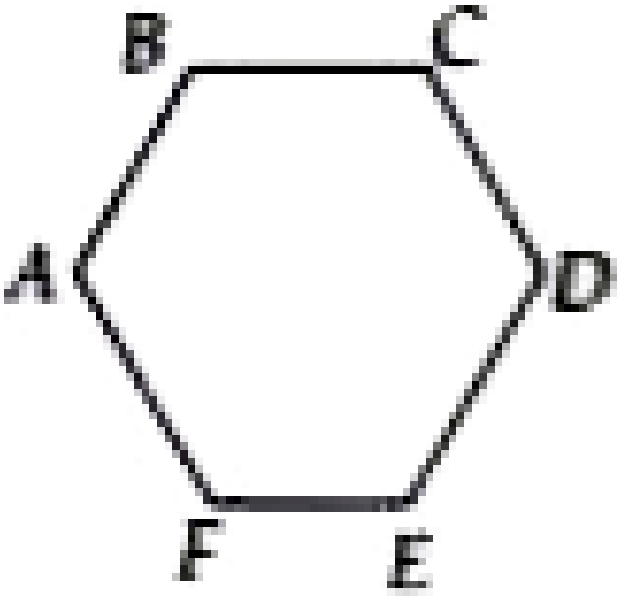
C. Radius

D. Centre

Answer: a

Watch Video Solution

7. Which of the following is the adjacent vertices of the given figure?



A. A and C

B. B and E

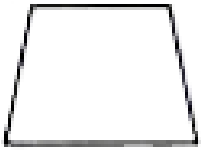
C. D and E,

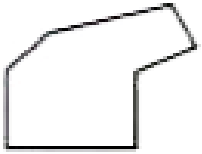
D. F and D

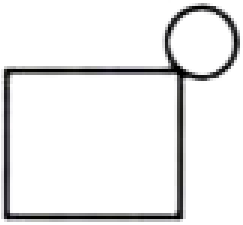
Answer: c

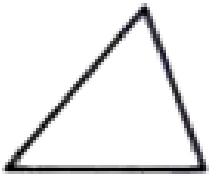
Watch Video Solution

8. Which of the following is NOT a polygon ?

A. 

B. 

C. 

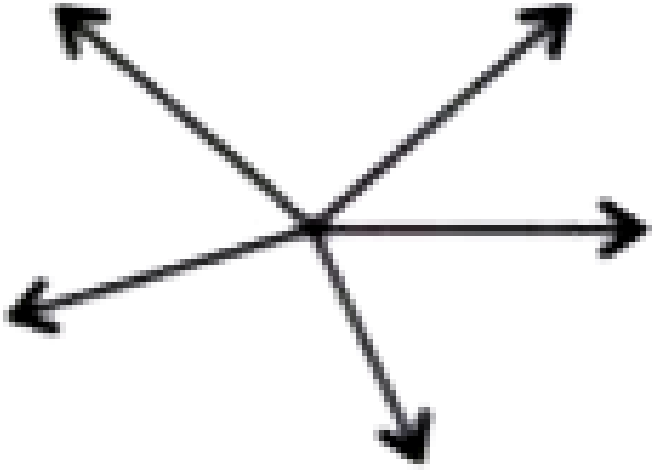
D. 

Answer: c

Watch Video Solution

Watch Video Solution

9. Number of angles formed in the given figure is_____



A. 2

B. 5

C. 4

D. More than 5

Answer: d

Watch Video Solution

10. In how many maximum number of points can two distinct lines intersect?

A. 3

B. 0

C. Infinite

D. 1

Answer: d

Watch Video Solution

11. Three or more points are___if they lie on a same line.

A. Collinear

B. Intersecting

C. Non-collinear

D. None of these

Answer: a

Watch Video Solution

12. The number of arcs made by a chord on a circle is__

A. 3

B. 2

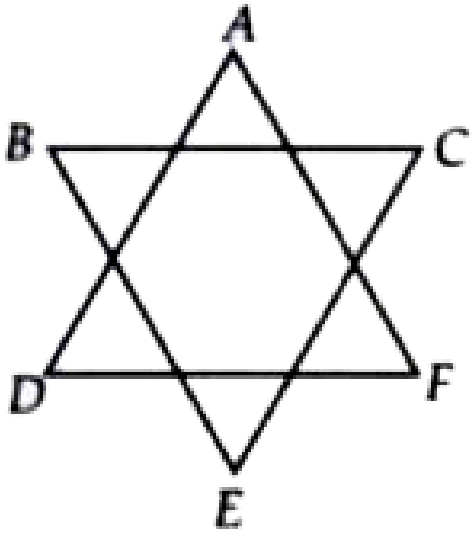
C. 1

D. 4

Answer: b

Watch Video Solution

13. How many triangles are there in the given figure ?



A. 6

B. 2

C. 8

D. 10

Answer: c

Watch Video Solution

14. The diameter of a circle passes through___

A. The centre

B. The circumference

C. Any where in the interior

D. Always two points

Answer: a

Watch Video Solution

15. The shortest path between any two points is called____

A. Line segment

B. Angle

C. Curve

D. Chord

Answer: a

Watch Video Solution

16. A four sided polygon is called___

A. Circle

B. Triangle

C. sector

D. Quadrilateral

Answer: d

Watch Video Solution

17. If the end points of a simple curve are joined,then it is said to be___

A. Closed

B. Open

C. Ray

D. Line

Answer: a

Watch Video Solution

18. The meeting point of adjacent sides of a quadrilateral is called a___

A. Vertex

B. Side

C. corner

D. Segment

Answer: a

Watch Video Solution

19. Parallel lines___

A. Never meet each other

B. Cut at one point

C. Cut at two point

D. Meet each other after certain distance

Answer: a

Watch Video Solution

20. Any three non-collinear points when joined together form a___

A. Triangle

B. Quadrilateral

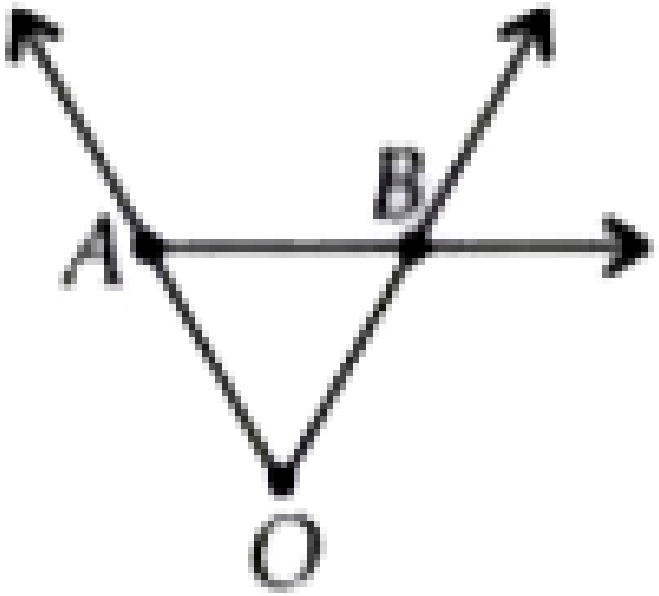
C. Rhombus

D. Square

Answer: a

Watch Video Solution

21. Which of the following does not represent a ray in the given figure?



A. OA

B. OB,

C. BA

D. AB

Answer: c

Watch Video Solution

22. The surface of which of the following does not represent a plane?

A. A book

B. Wall

C. Floor of your room

D. A football

Answer: d

Watch Video Solution

23. Which of the following can be measured?

A. Line

B. ray

C. point

D. Line segment

Answer: d

Watch Video Solution

24. Number of diagonals for an octagon

A. 5

B. 17

C. 8

D. 20

Answer: d

Watch Video Solution

25. The relation between radius (r) and diameter (d) is___

A. d=2xr

B. d=r/2

C. d=r/3

D. d=3r

Answer: a

Watch Video Solution

26. The chord of a circle which passes through the centre is___the radius

A. Thrice

B. Double

C. Half

D. Equal to

Answer: b

Watch Video Solution

27. The distance from center of circle to its boundary is known as

A. Diameter

B. Radius

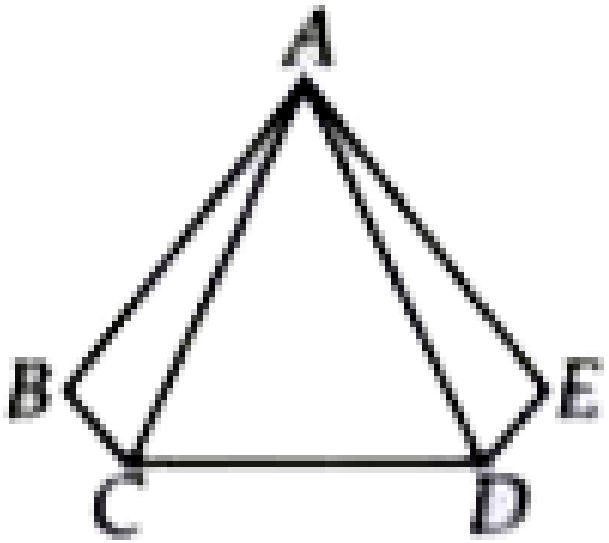
C. Circumference

D. Chord

Answer: B

Watch Video Solution

28. How many line segments are there in the given figure?



A. 6

B. 7

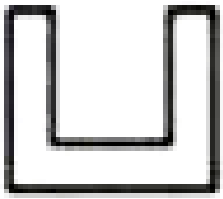
C. 8

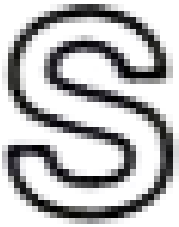
D. 9

Answer: b

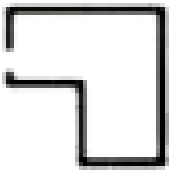
Watch Video Solution

29. Which of the following is an open curve?

A. 

B. 

C. 

D. 

Answer: d

Watch Video Solution

30. Which of the following is incorrect?

A. Sector is the area enclosed by two radil and an are of a circle.

B. A chord connects two points on the circumference of a circle.

C. Length of radii of a circle are equal.

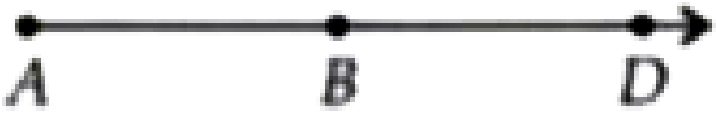
D. Every chord divides the circle into two equal parts.

Answer: d

Watch Video Solution

Exercise Mcq Level 2

1. Which of the following is not found in the given figure?



A. point

B. Ray

C. line

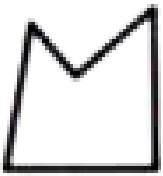
D. Line segment

Answer: c

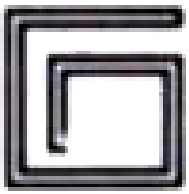
Watch Video Solution

2. Which of the following is not a simple closed figure?

A. 

B. 

C.

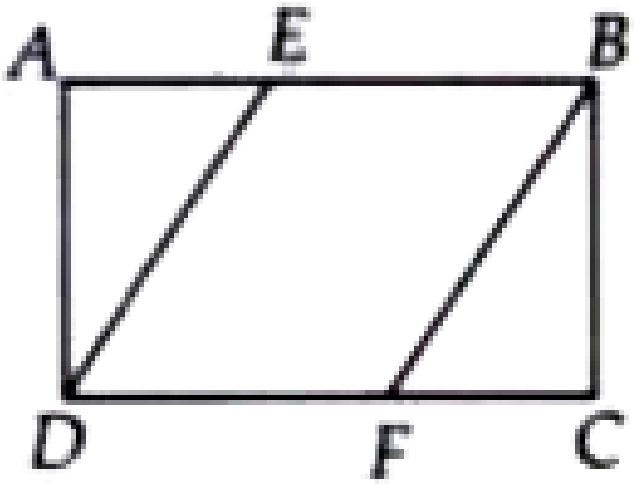


D.

Answer: d

Watch Video Solution

3. Which of the following pair of line segments are not parallel, as shown in the figure?



A. AD, BC

B. AE, FC

C. DE, BF

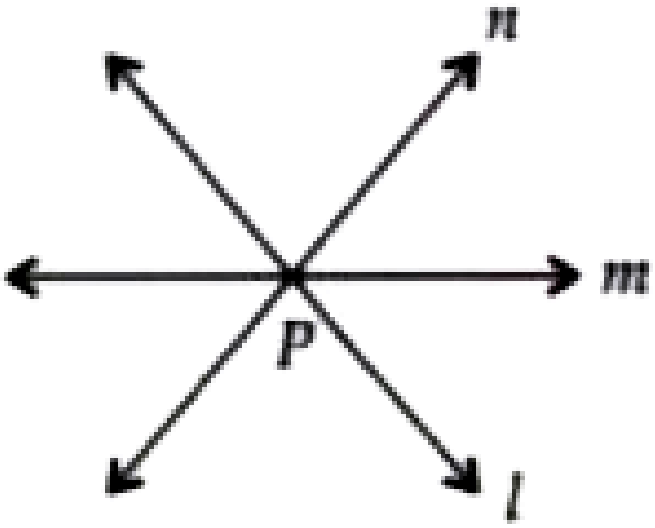
D. AB, BC

Answer: d

Watch Video Solution

4. In the given figure, lines I, m and n have been drawn passing through P.

How many more lines can we draw through P?



A. None

B. one

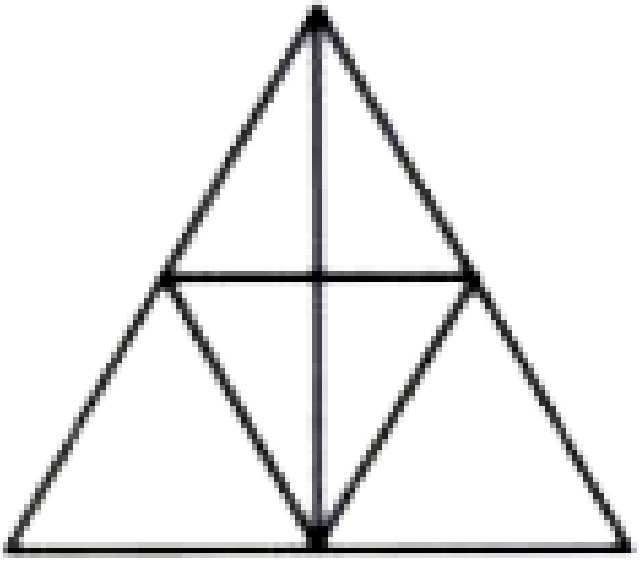
C. Five

D. Infinite

Answer: d

Watch Video Solution

5. The number of triangles in the given figure is___



A. 10

B. 12

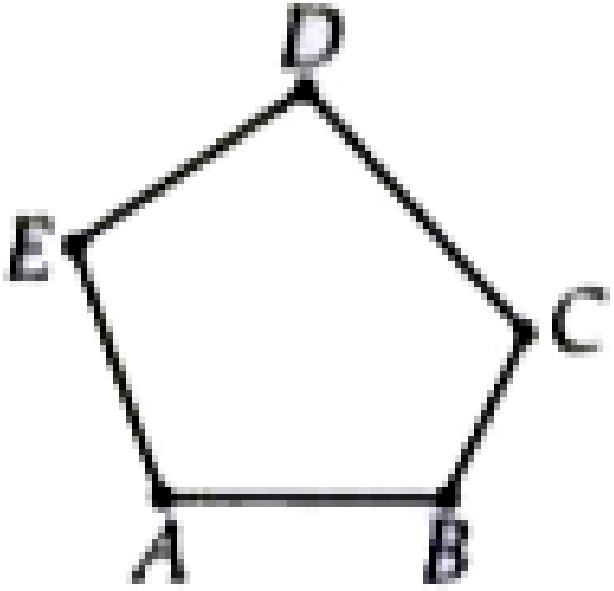
C. 13

D. 14

Answer: c

Watch Video Solution

6. How many pairs of adjacent vertices are there in the following figure?



A. 5

B. 3

C. 2

D. 4

Answer: a

Watch Video Solution

7. How many pairs of opposite sides are there in a quadrilateral?

A. 1

B. 2

C. 3

D. 4

Answer: b

Watch Video Solution

8. Which of the following statements is false?

A. Two diameters of a circle will necessarily intersect.

B. The centre of a circle is always in its interior.

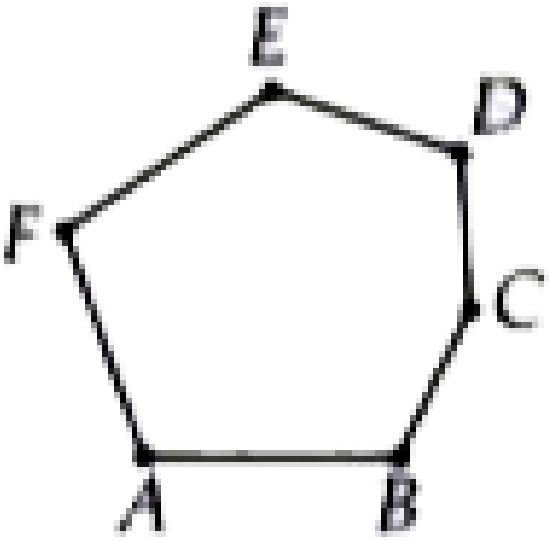
C. Every diameter of a circle is also a chord.

D. Every chord of a circle is also a diameter.

Answer: d

Watch Video Solution

9. How many pairs of adjacent angles are there in the following figure?



A. 5

B. 4

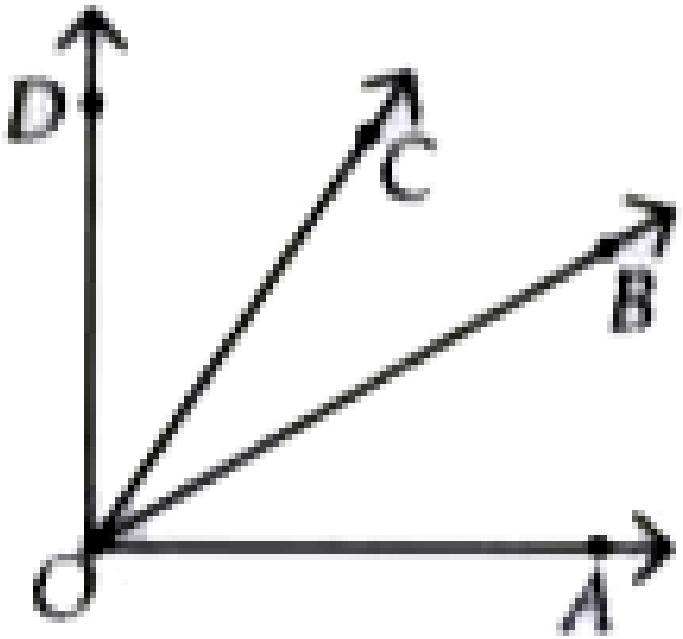
C. 6

D. 3

Answer: c

Watch Video Solution

10. Which of the following pairs of angles are not adjacent angles?



A. $\angle AOB, \angle BOD$

B. $\angle BOC, \angle AOC$

C. $\angle COD, \angle AOC$

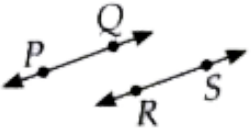
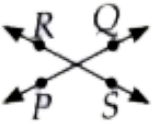
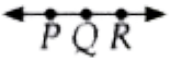
D. $\angle BOC, \angle AOB$

Answer: b

Watch Video Solution

Match The Following

1. Match the following:

List-I		List-II
(P)		1. Collinear points
(Q)		2. $\angle QPR$
(R)		3. Parallel Lines
(S)		4. Intersecting Lines

A. P-1, Q-4, R-3, S-2

B. P-2, Q-3, R-1, 5-4

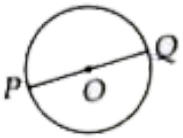
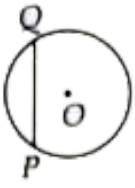
C. P-2, Q-3, R-4, 5-1

D. P-2. Q-4, R-3, 5-1

Answer: c

Watch Video Solution

2. Match the following:

List-I	List-II
(P) Shaded part of  represents	1. Sector
(Q) Shaded part of  represents	2. Segment
(R)  Here PQ is a	3. Chord
(S) 	4. Diameter

Watch Video Solution

Assertion Reason Type

1. Assertion: PQ and RS are the adjacent sides of quadrilateral PQRS.

Reason : Adjacent sides are any two sides with a common end point.

A. Reason : A quadrilateral is a polygon made up of line segments.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: d

Watch Video Solution

2. Assertion:Two planes intersect in a line. point,

Reason :If two lines have one common point, they are intersecting lines.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer: b

View Text Solution

3. Assertion : A quadrilateral has 4 and 2 angle and 4 diagonals.

Reason : A quadrilateral is a polygon made up of line segments.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

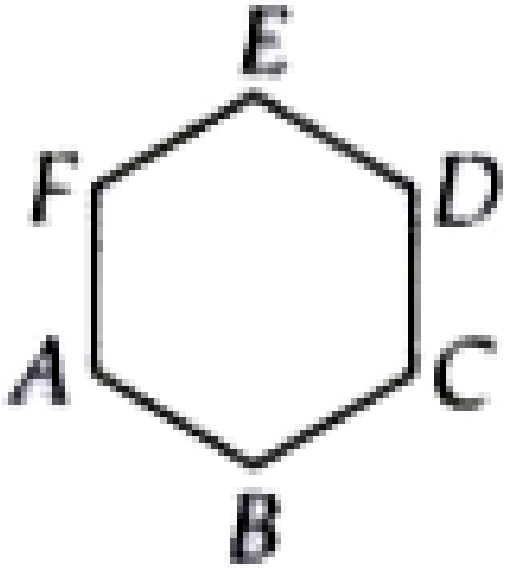
D. If assertion is false but reason is true.

Answer: d

Watch Video Solution

Comprehension Type Passage I

1. A polygon is entirely made up of straight lines only. A hexagon ABCDEF is a six sided polygon.



How many diagonals are there in the hexagon?

A. 7

B. 8

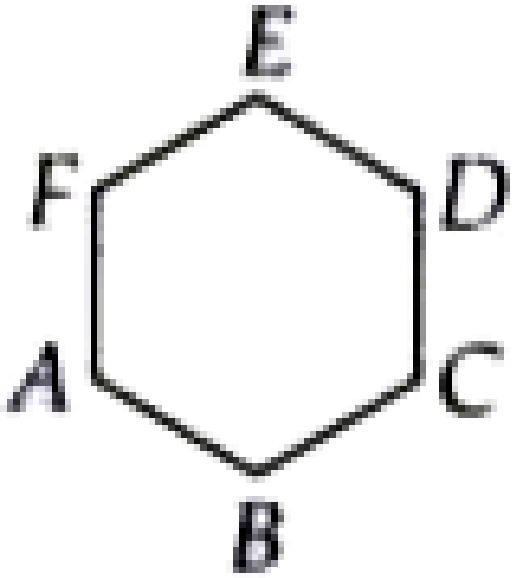
C. 9

D. 10

Answer: c

Watch Video Solution

2. A polygon is entirely made up of straight lines only. A hexagon ABCDEF is a six sided polygon.



How many line segments are there in the hexagon?

A. 5

B. 6

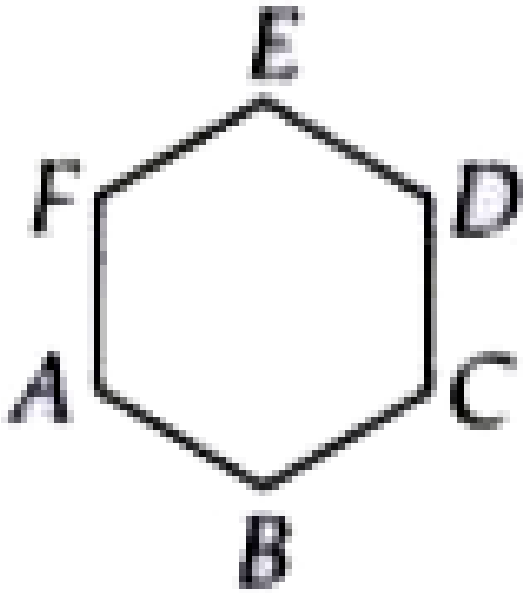
C. 7

D. 8

Answer: b

Watch Video Solution

3. A polygon is entirely made up of straight lines only. A hexagon ABCDEF is a six sided polygon.



.How many angles are there in the hexagon?

A. 5

B. 6

C. 7

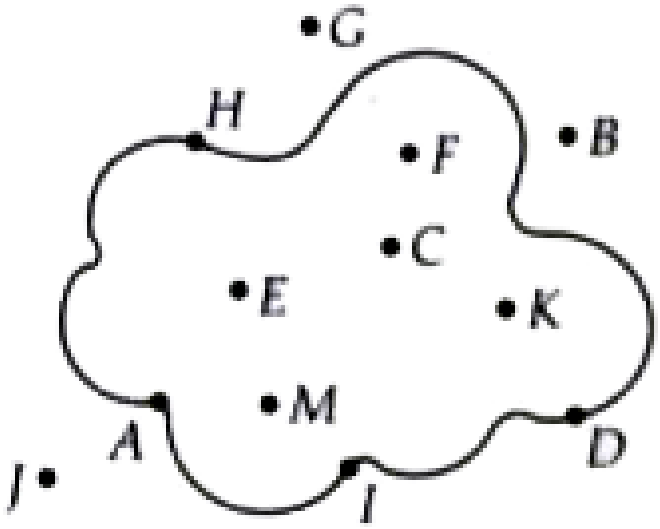
D. 8

Answer: b

Watch Video Solution

Comprehension Type Passage Ii

1. A simple closed curve does not cross itself and its ends are joined.



How many points lie in the exterior of the given curve?

A. 2

B. 3

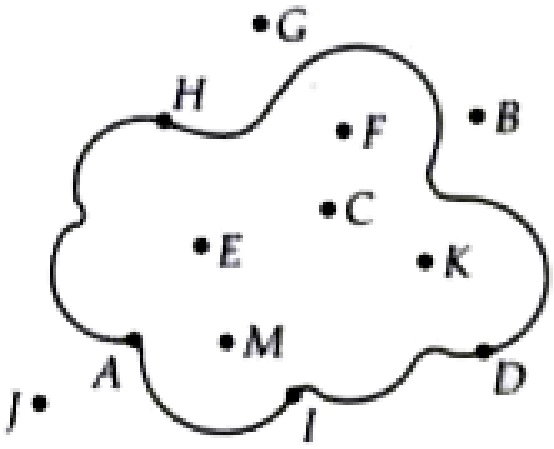
C. 4

D. 5

Answer: b

Watch Video Solution

2. A simple closed curve does not cross itself and its ends are joined.



.How many points lie in the interior of the curve?

A. 3

B. 4

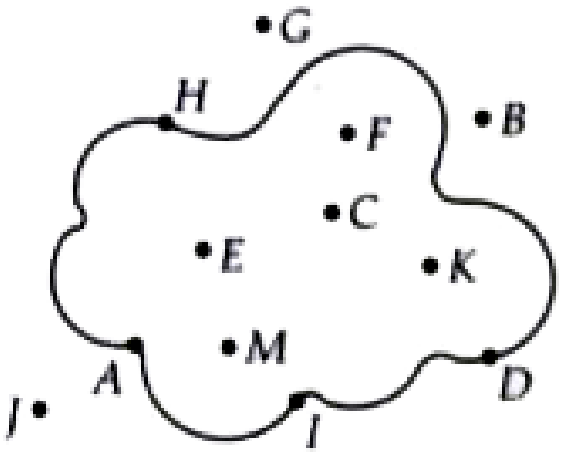
C. 5

D. 6

Answer: c

Watch Video Solution

3. A simple closed curve does not cross itself and its ends are joined.



how many points lie in the region of the curve?

A. 5

B. 6

C. 8

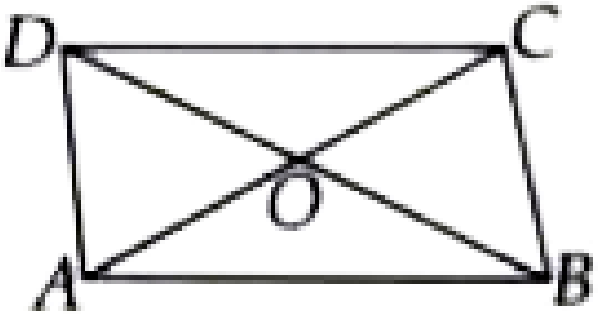
D. 9

Answer: d

Watch Video Solution

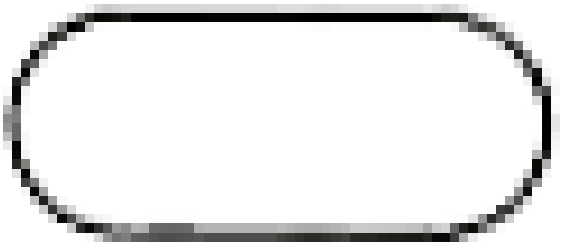
Subjective Problems Very Short Answer Type

1. Count the number of line segments drawn in the following figure and name them.



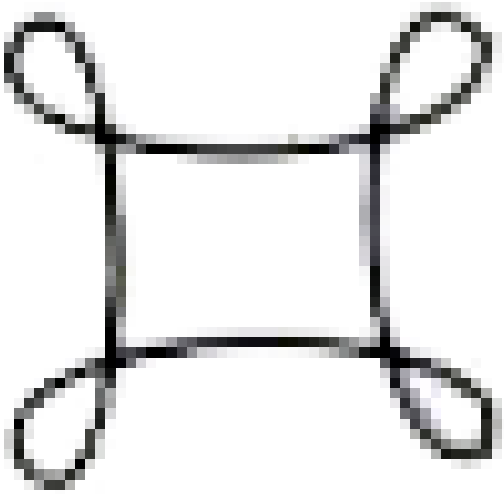
Watch Video Solution

2. Which of the following are polygons?



Watch Video Solution

3. Which of the following are polygons?

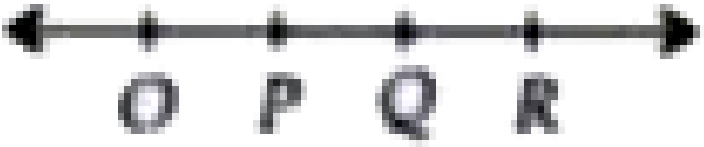


Watch Video Solution

4. Which of the following are polygons?

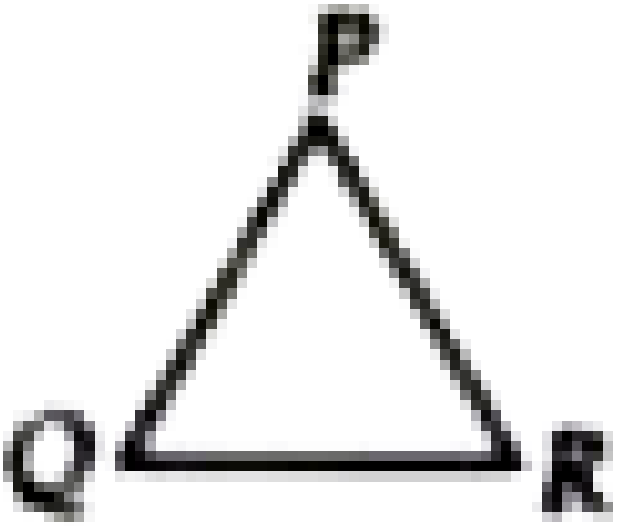
Watch Video Solution

5. From the given figure, write the names of the rays drawn in the same directions:



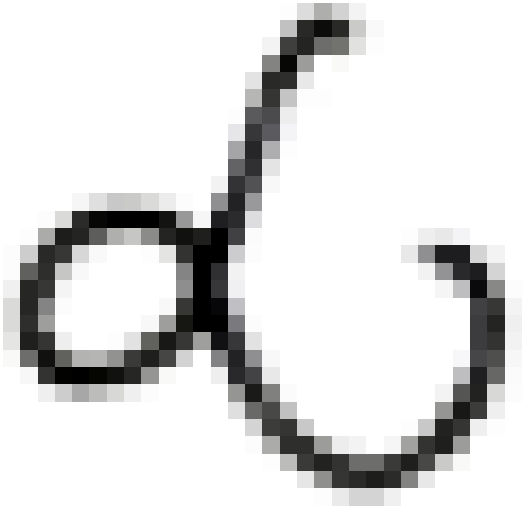
Watch Video Solution

6. Name the vertices and sides of the given triangle.



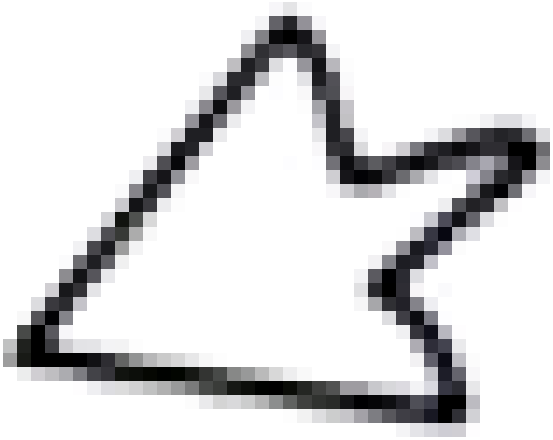
Watch Video Solution

7. Identify the open and closed curves.



Watch Video Solution

8. Identify the open and closed curves.

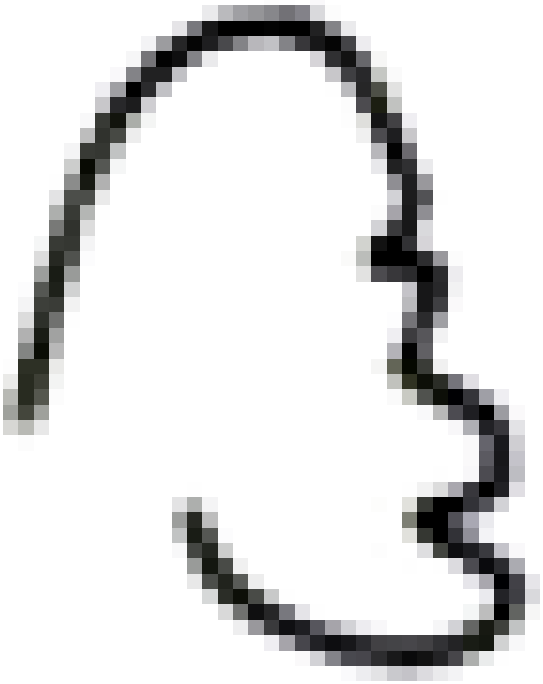


Watch Video Solution

9. Identify the open and closed curves.

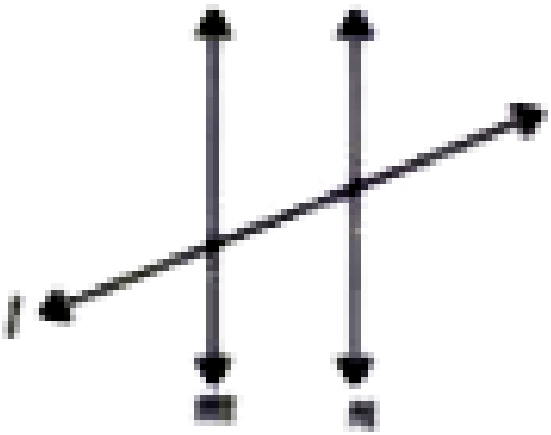
Watch Video Solution

10. Identify the open and closed curves.



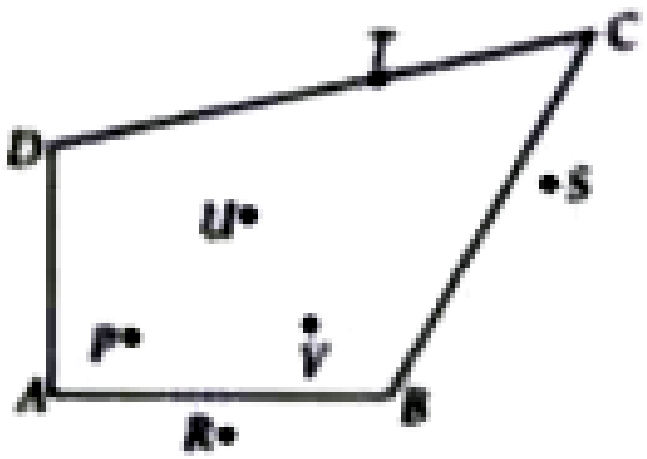
Watch Video Solution

11. Name the pair of all intersecting lines in the given figure.



Watch Video Solution

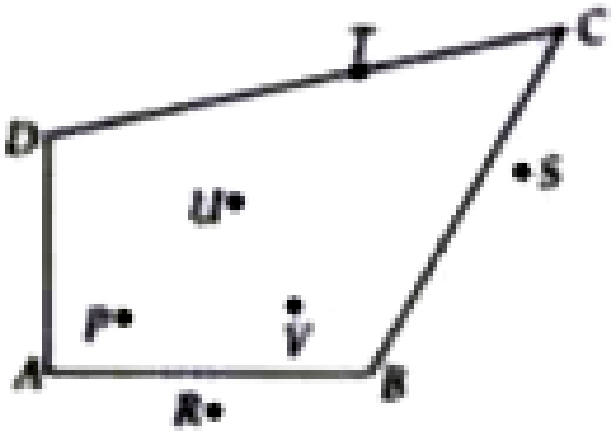
12. Write the points which lie



in the interior of quadrilateral ABCD.

Watch Video Solution

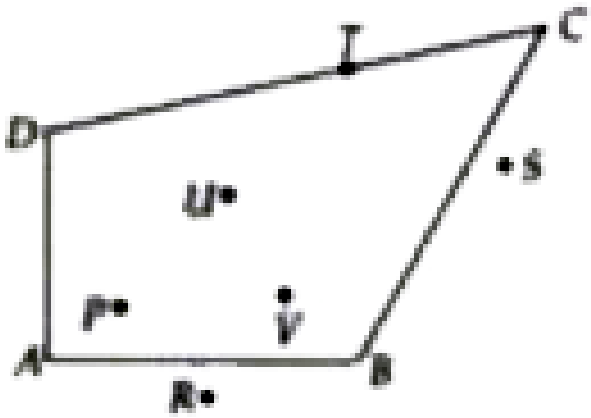
13. Write the points which lie



in the exterior of quadrilateral ABCD.

Watch Video Solution

14. Write the points which lie



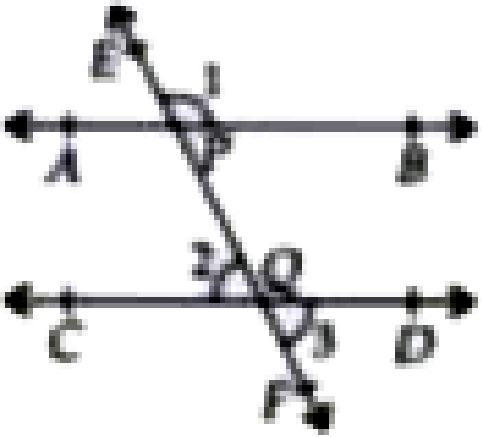
on the boundary of quadrilateral ABCD.

Watch Video Solution

15. If the line 1 passing through the points A and B also passes through the point C, then what are the three points A, B and C called?

Watch Video Solution

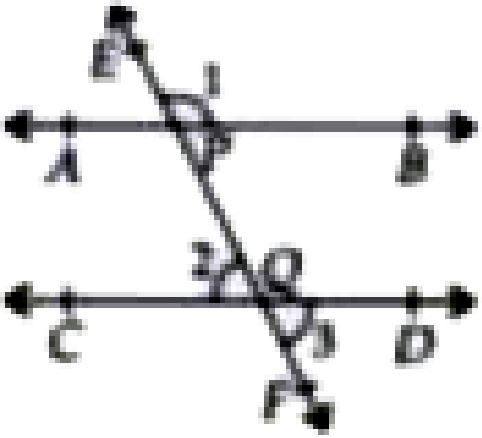
16. In the given figure, write another name for:



$\angle 1$

Watch Video Solution

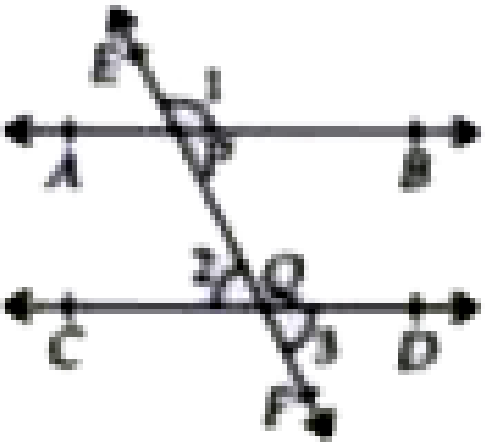
17. In the given figure, write another name for:



$\angle 2$

Watch Video Solution

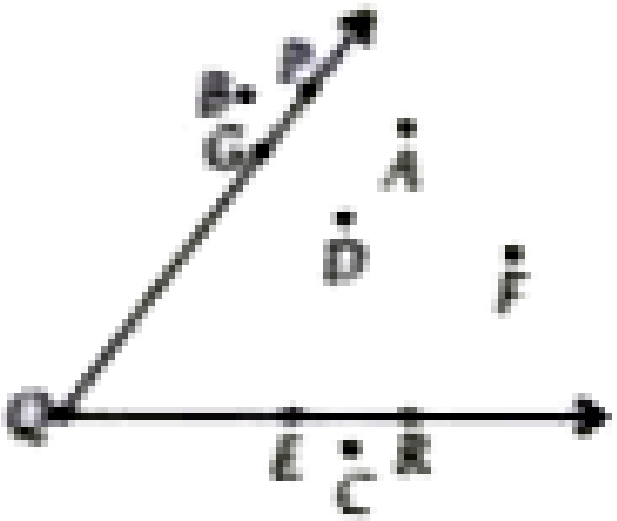
18. In the given figure, write another name for:



$\angle 3$

Watch Video Solution

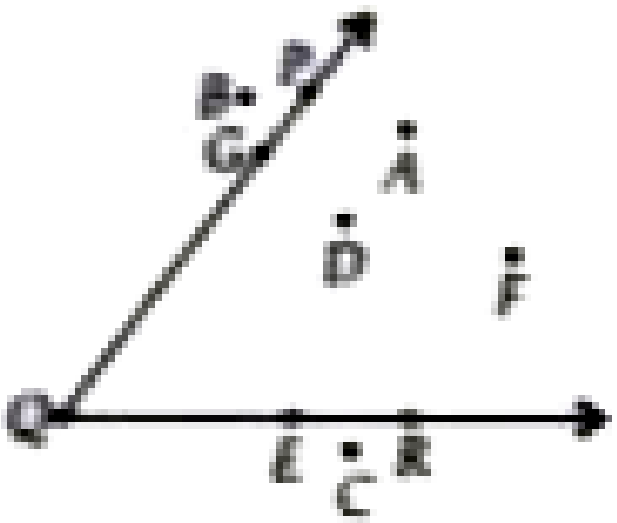
19. In the given figure, name: the points which are



in the interior of $\angle PQR$

Watch Video Solution

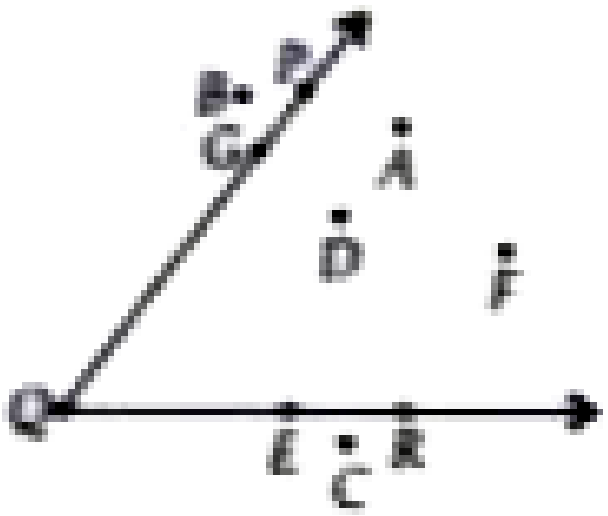
20. In the given figure, name: the points which are



in the exterior of $\angle PQR$

Watch Video Solution

21. In the given figure, name: the points which are

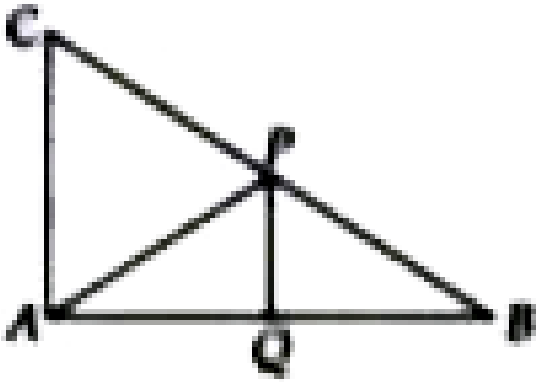


on $\angle PQR$

Watch Video Solution

Subjective Problems Short Answer Type

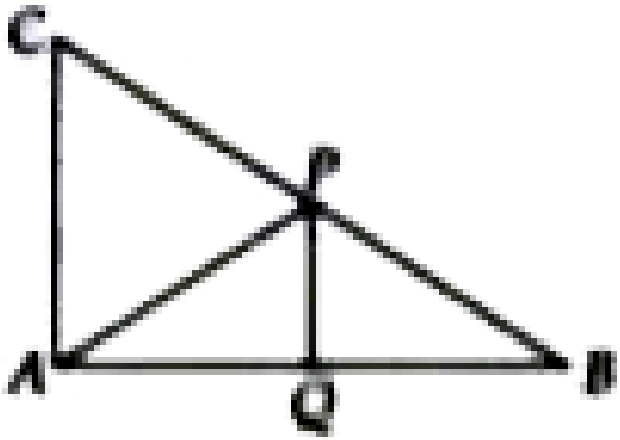
1. Study the given figure and answer the following questions:



Name all the triangles formed in the given figure.

Watch Video Solution

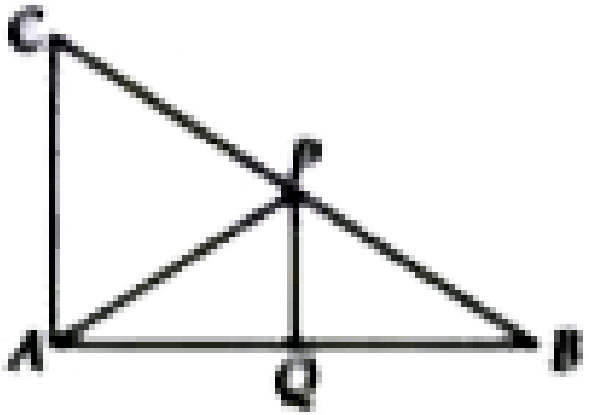
2. Study the given figure and answer the following questions:



Which two points lie on sides BC and AB respectively?

Watch Video Solution

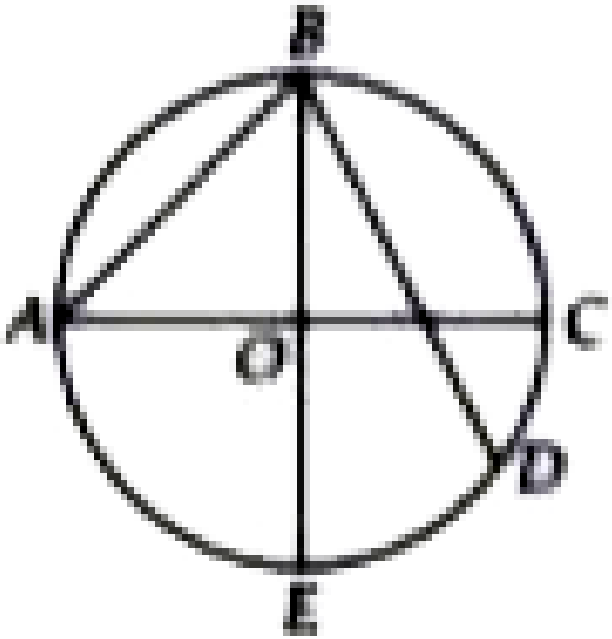
3. Study the given figure and answer the following questions:



Name any two line segments inside the triangle ABC.

Watch Video Solution

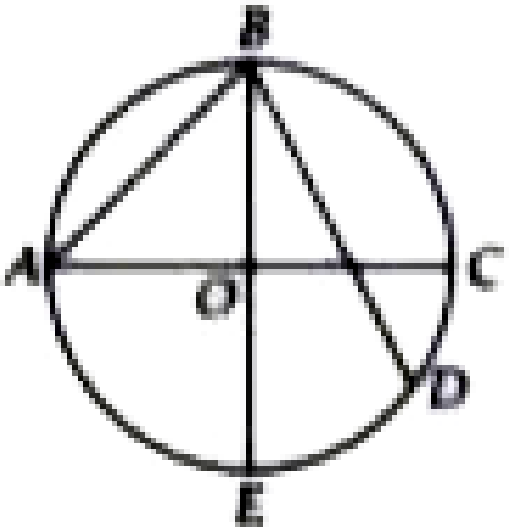
4. In the given figure, name the following:



centre of the circle

Watch Video Solution

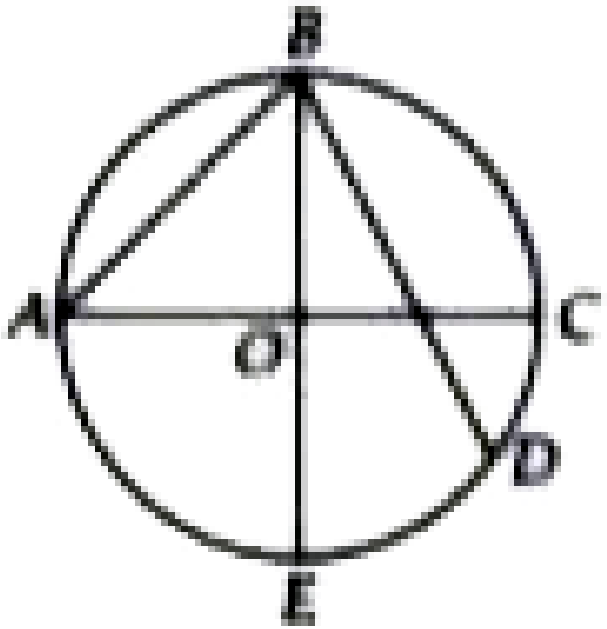
5. In the given figure, name the following:



radii of the circle

Watch Video Solution

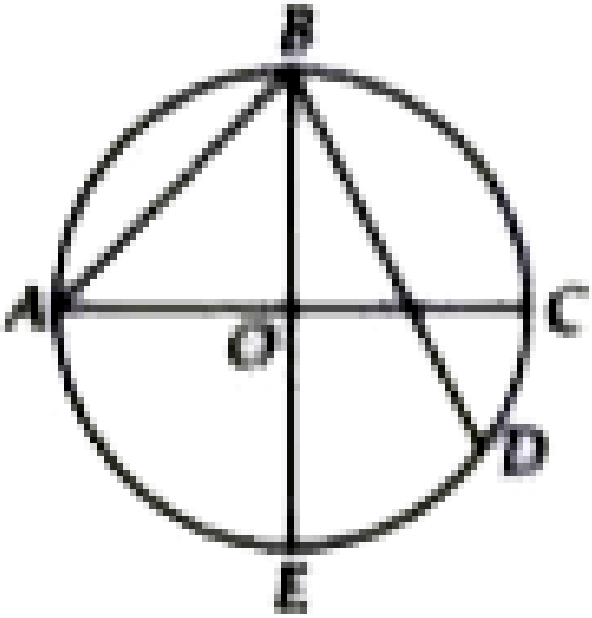
6. In the given figure, name the following:



diameters of the circle

Watch Video Solution

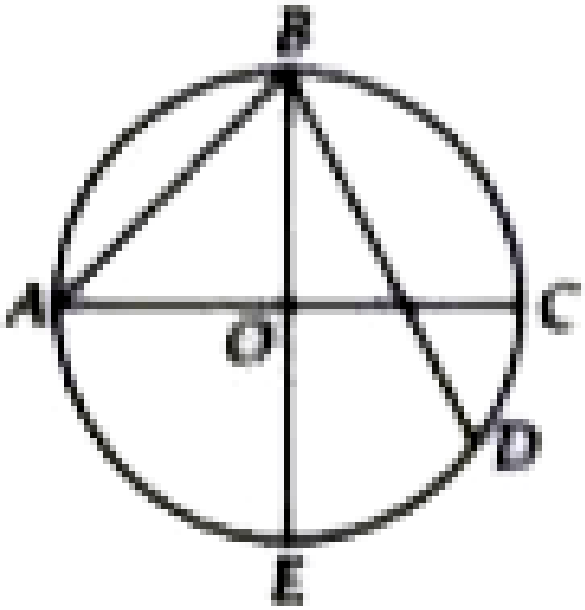
7. In the given figure, name the following:



chords of the circle

Watch Video Solution

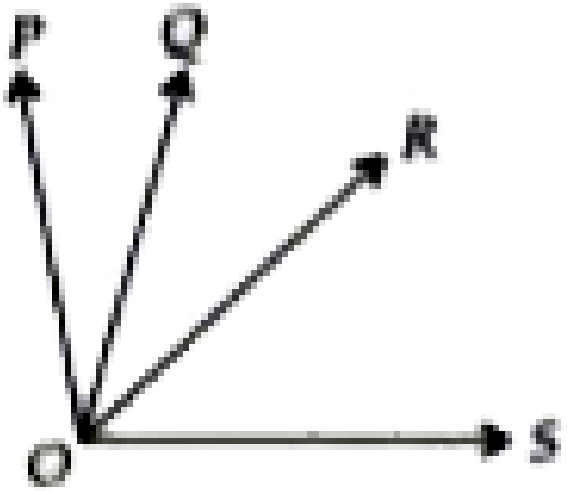
8. In the given figure, name the following:



two minor and major arcs

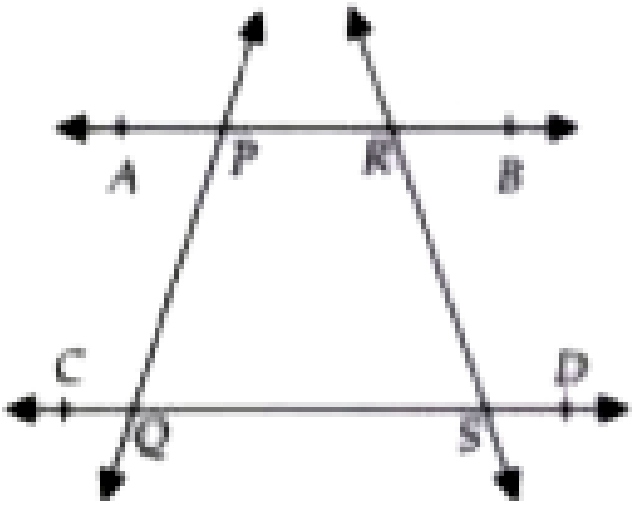
Watch Video Solution

9. How many angles are formed in the following figure?



Watch Video Solution

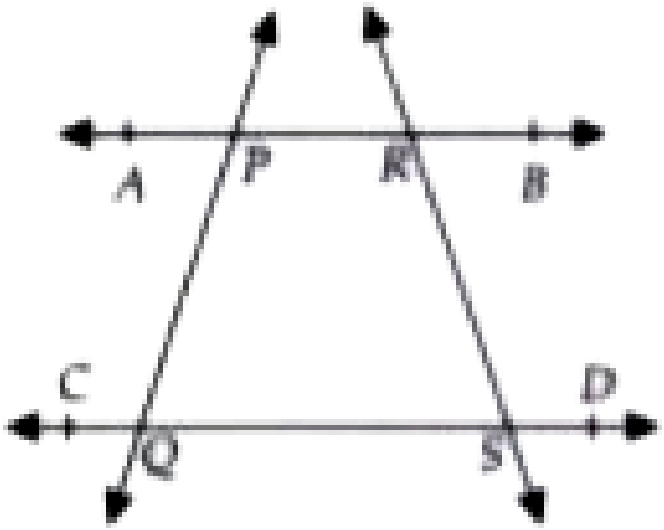
10. In the given figure, name:



four line segments

Watch Video Solution

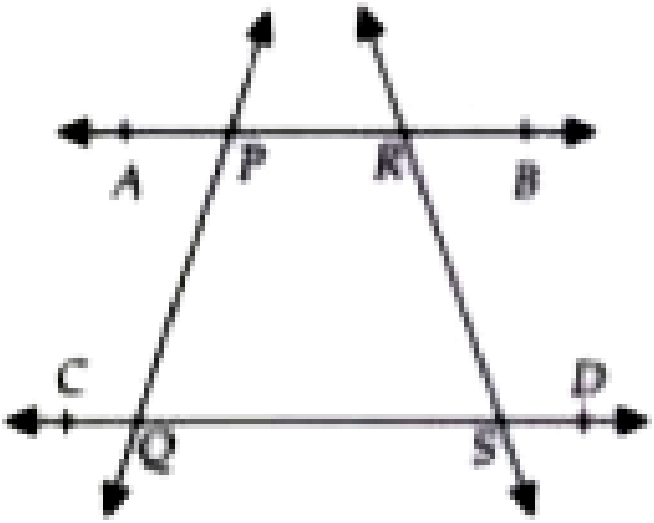
11. In the given figure, name:



four rays

Watch Video Solution

12. In the given figure, name:



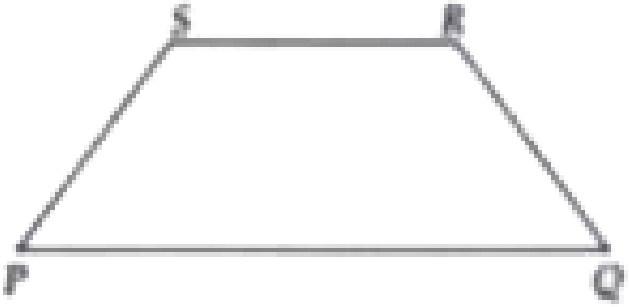
two non-intersecting line segments

Watch Video Solution

13. Name the six parts of the circle numbered in the diagrams below,

Watch Video Solution

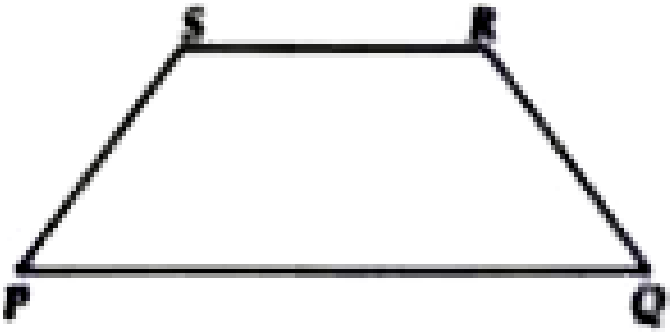
14. In the given figure, PQRS is a quadrilateral:



How many pairs of adjacent sides are there? Name them.

Watch Video Solution

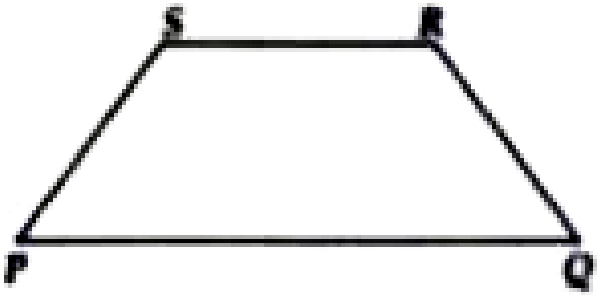
15. In the given figure, PQRS is a quadrilateral:



How many pairs of opposite sides are there? Name them.

Watch Video Solution

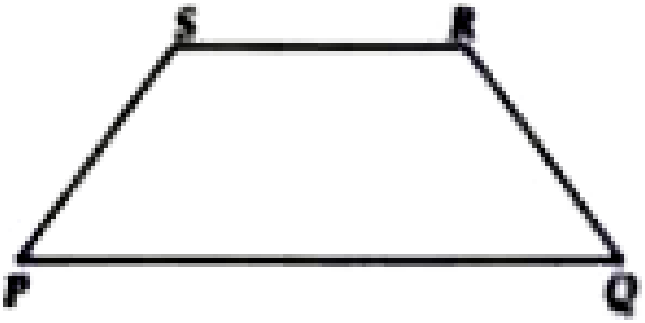
16. In the given figure, PQRS is a quadrilateral:



How many pairs of adjacent angles are there? Name them.

Watch Video Solution

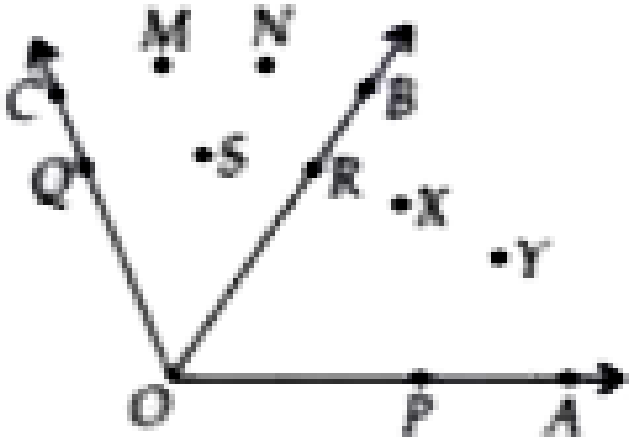
17. In the given figure, PQRS is a quadrilateral:



How many pairs of opposite angles are there? Name them.

Watch Video Solution

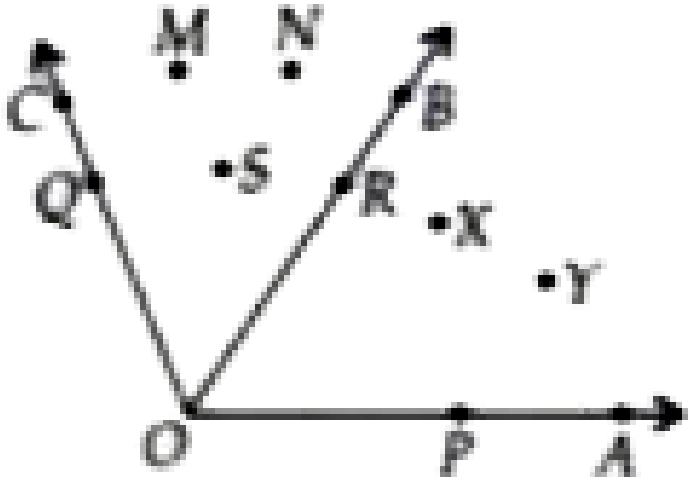
18. In the given figure,



Name the angle which contains the points M, N and S in its interior.

Watch Video Solution

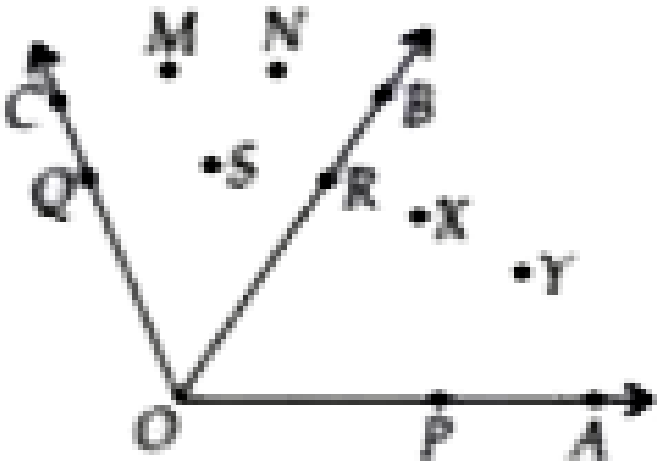
19. In the given figure,



Name the angle which has X and Y as points in its interior.

Watch Video Solution

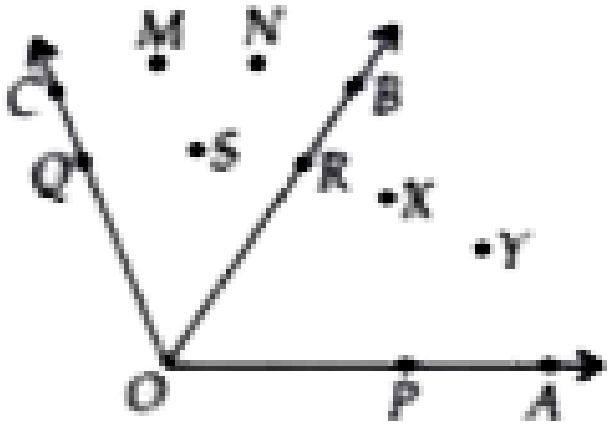
20. In the given figure,



Name the angle which contains the points R S and Y in its interior.

Watch Video Solution

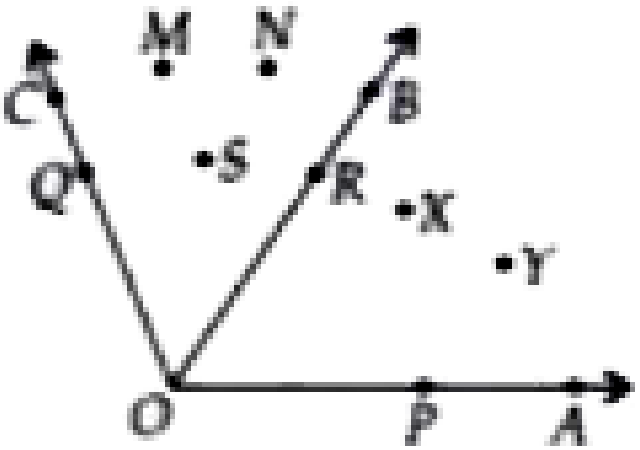
21. In the given figure,



List the points which are in the exterior of $\angle$ AOB.

Watch Video Solution

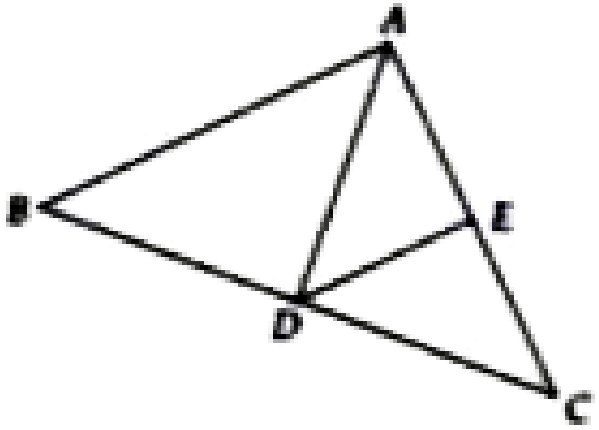
22. In the given figure,



List the points which are on the angle $\angle$ AOC.

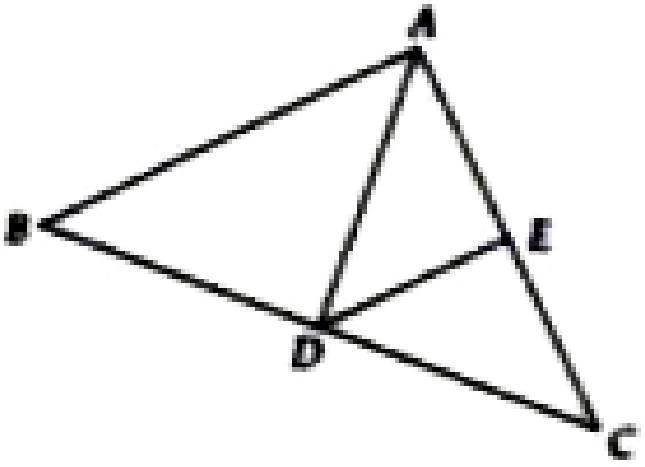
Watch Video Solution

23. In the given figure, name all the triangles:



Watch Video Solution

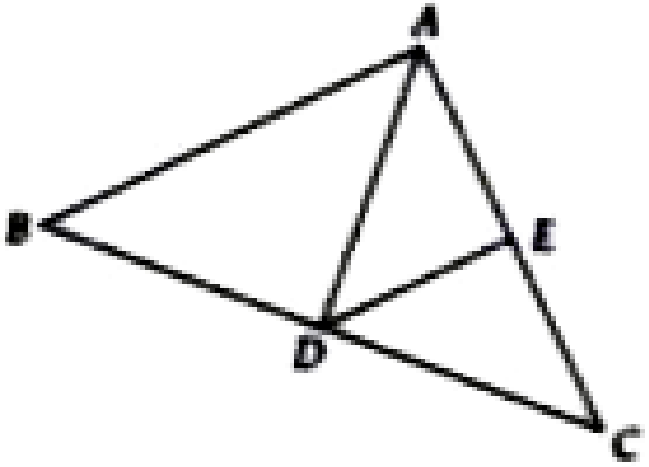
24. In the given figure, name:



the sides opposite to $\angle ADB$

Watch Video Solution

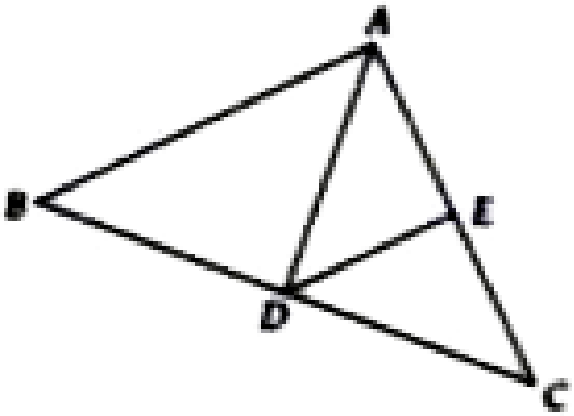
25. In the given figure, name:



all the line segments

Watch Video Solution

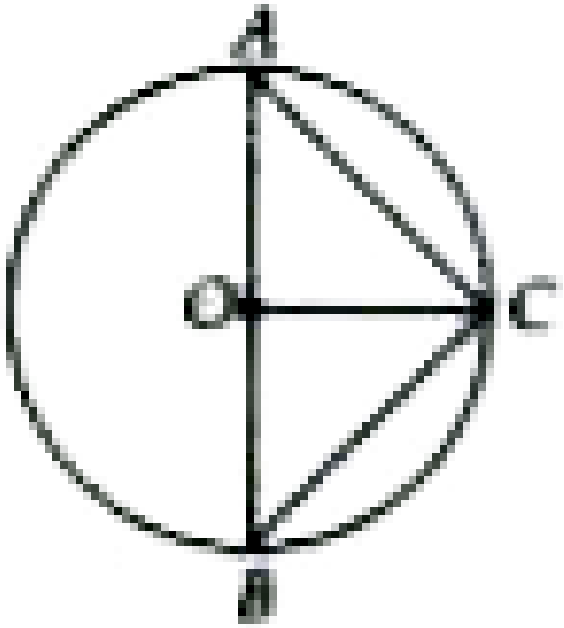
26. In the given figure, name:



the angle opposite to BC

Watch Video Solution

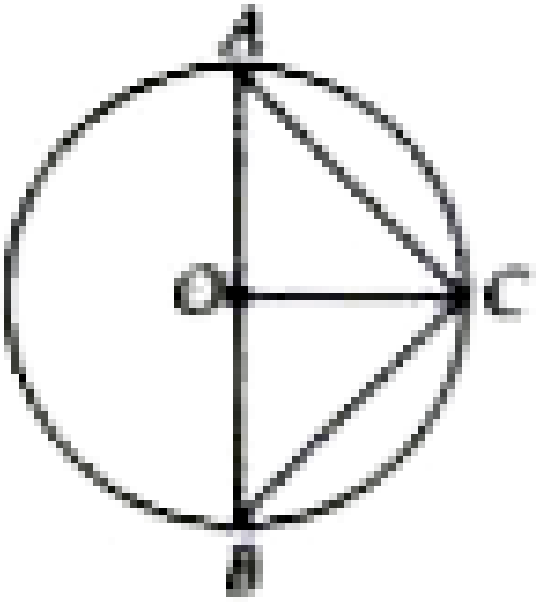
27. In the given circle, find the following:



three radii

Watch Video Solution

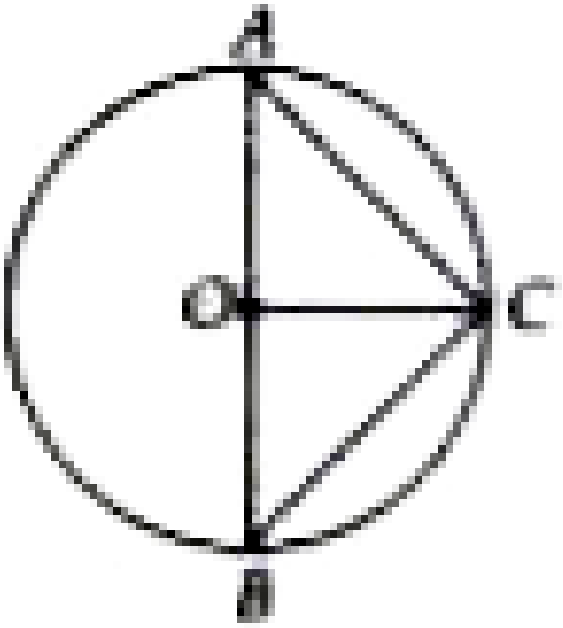
28. In the given circle, find the following:



three chords

Watch Video Solution

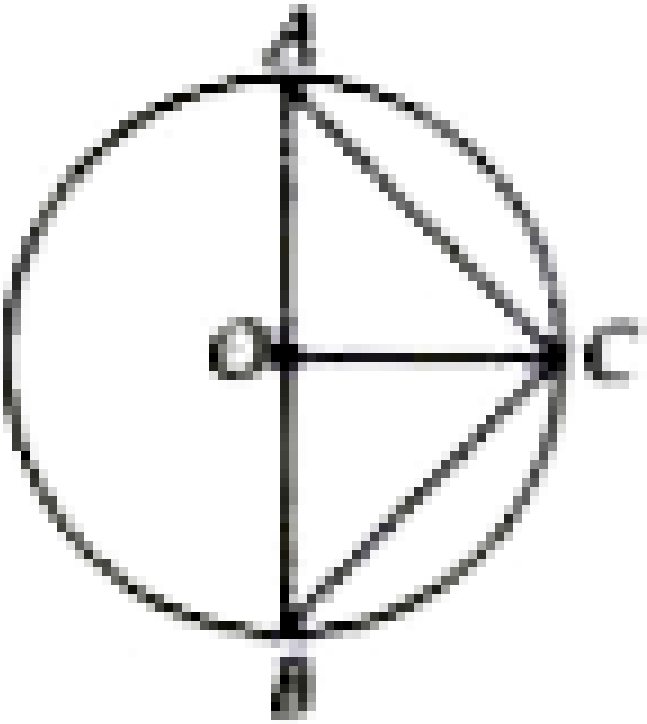
29. In the given circle, find the following:



a diameter

Watch Video Solution

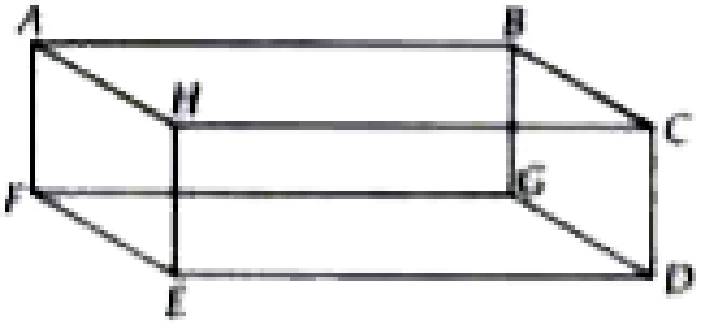
30. In the given circle, find the following:



a triangle that has the centre of the circle as vertex.

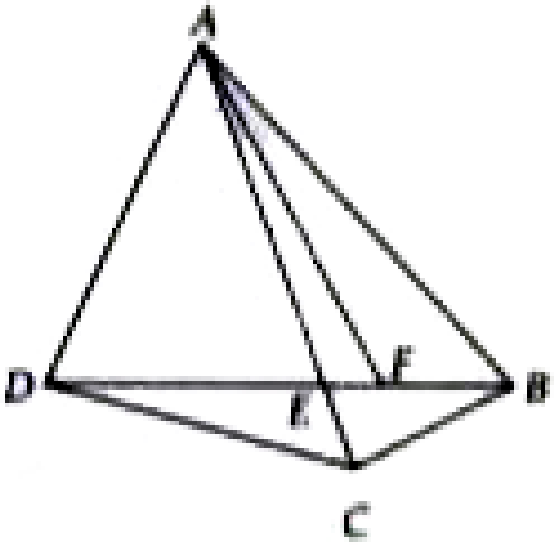
Watch Video Solution

31. How many points are marked in the following figures? Name them.



Watch Video Solution

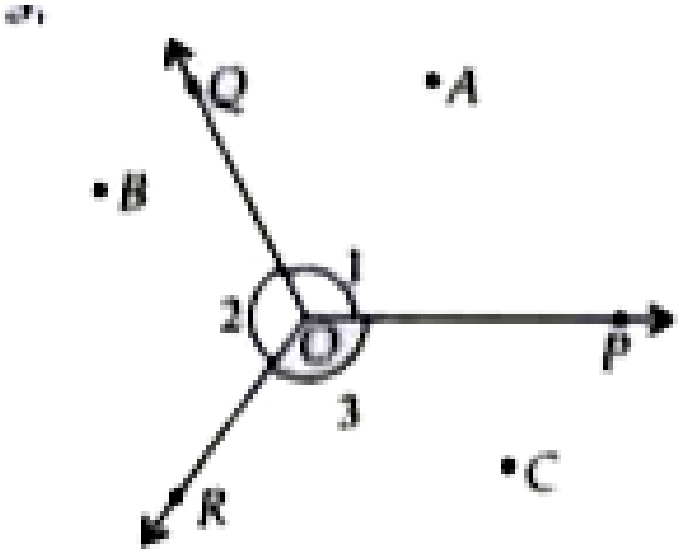
32. How many points are marked in the following figures? Name them.



Watch Video Solution

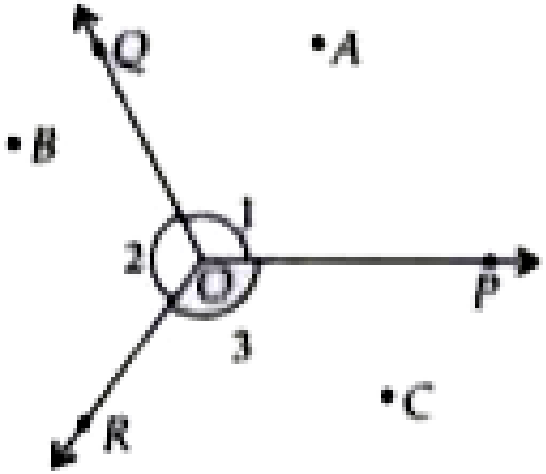
Subjective Problems Long Answer Type

1. Rays OP, OQ and OR have a common end point O forming several angles. The angles shown are 1, 2 and 3.



Rename the angles using alphabets.

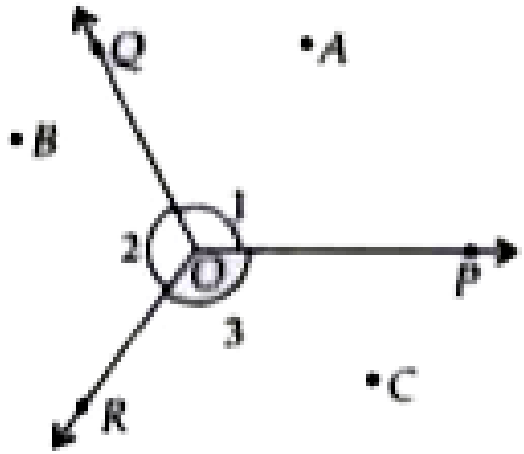
Watch Video Solution



2.

In the given figure, name the point in the interior of angle: (a) POQ (b) QOR

Watch Video Solution

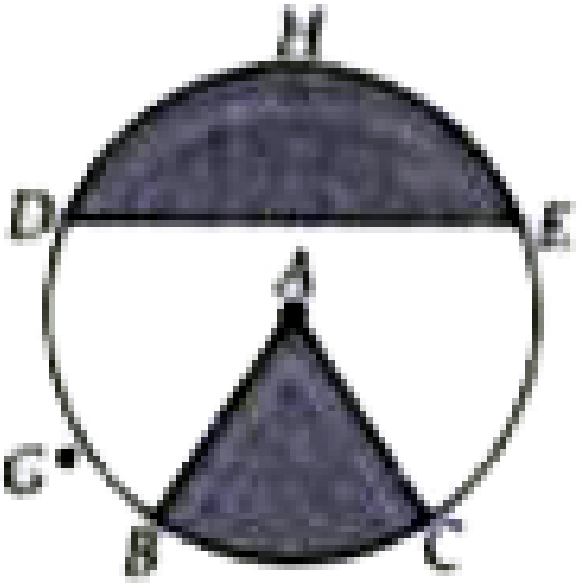


3.

Name two points each of which lie on the angle: (a) POR (b) POQ

Watch Video Solution

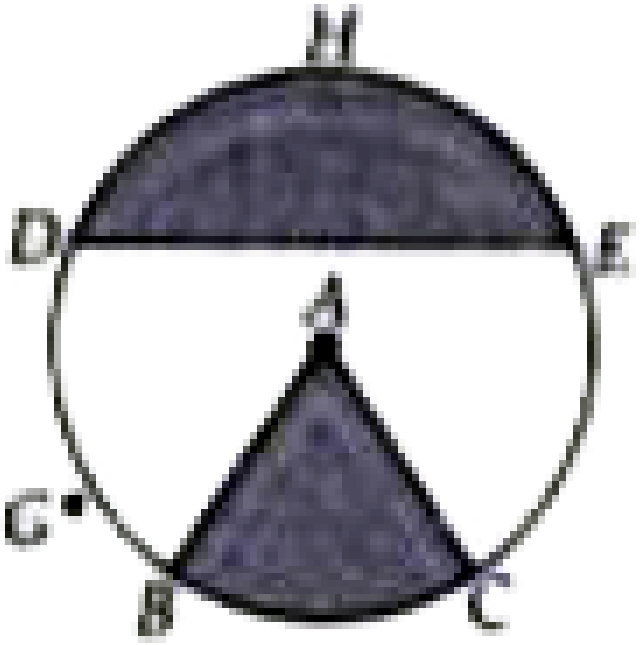
4. From the given circle, name the following:



a chord

Watch Video Solution

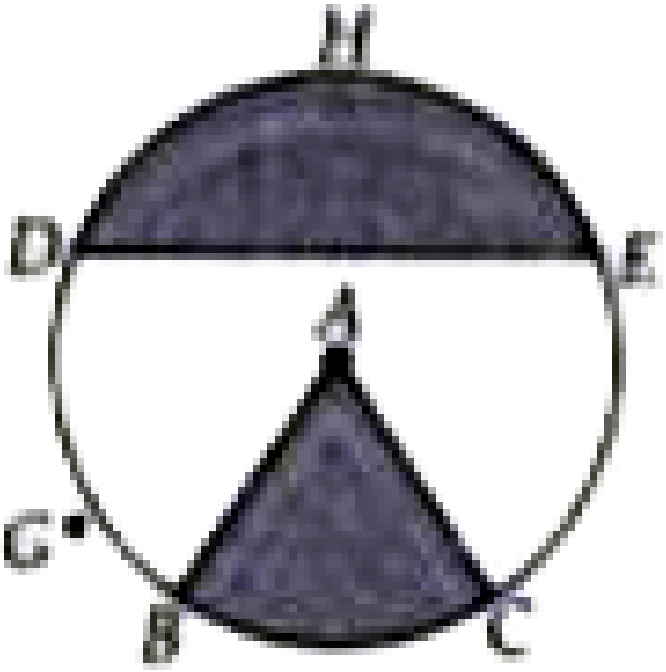
5. From the given circle, name the following:



a point in the interior and a point in the exterior of the circle

Watch Video Solution

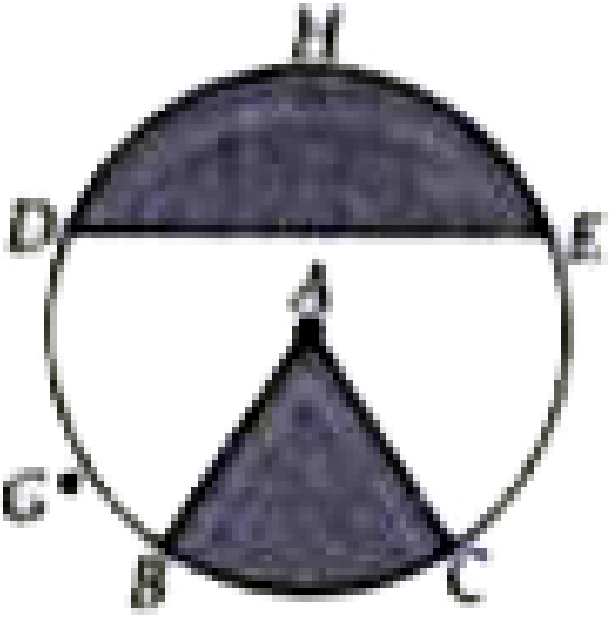
6. From the given circle, name the following:



a sector

Watch Video Solution

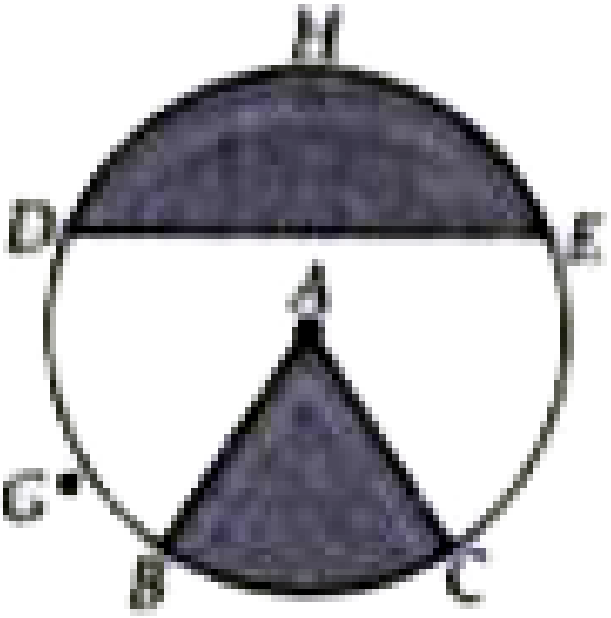
7. From the given circle, name the following:



a segment

Watch Video Solution

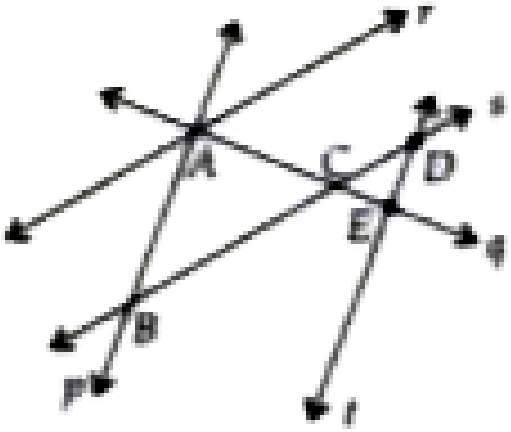
8. From the given circle, name the following:



an arc.

Watch Video Solution

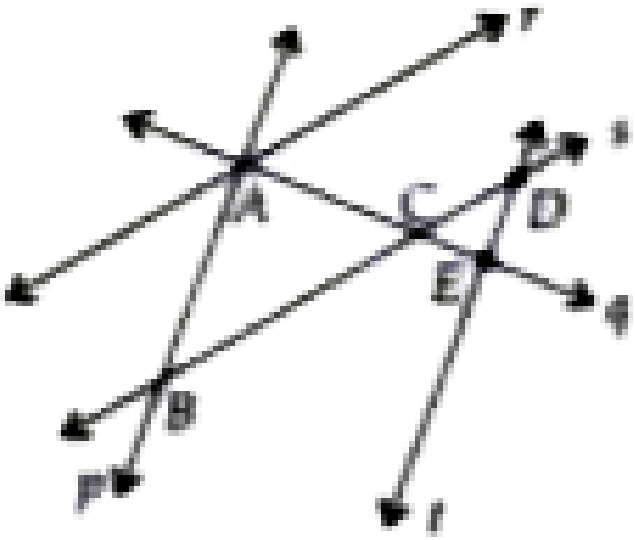
9. From the figure, name:



a line segment on s

Watch Video Solution

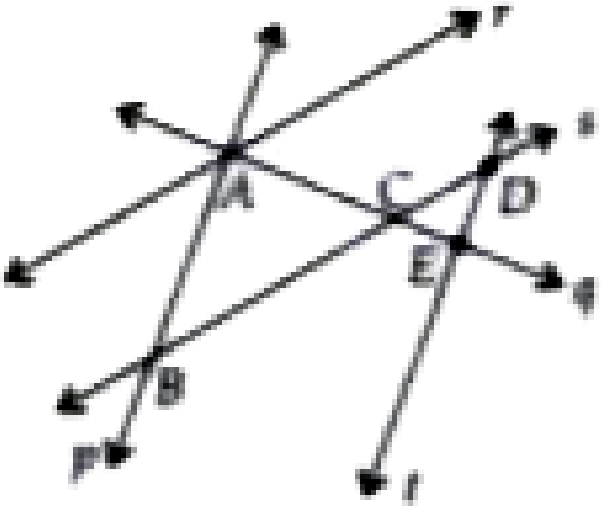
10. From the figure, name:



the line p in two other ways

Watch Video Solution

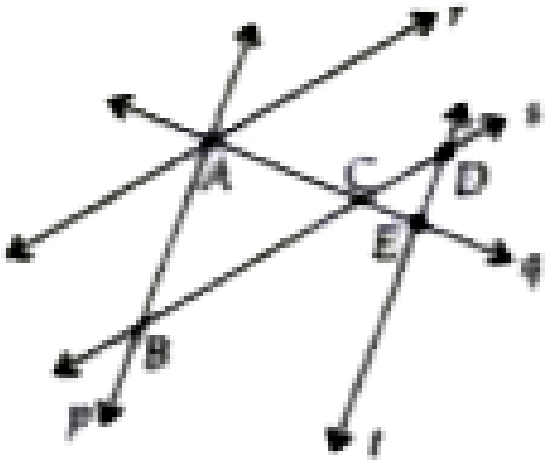
11. From the figure, name:



all the line segments on line q

Watch Video Solution

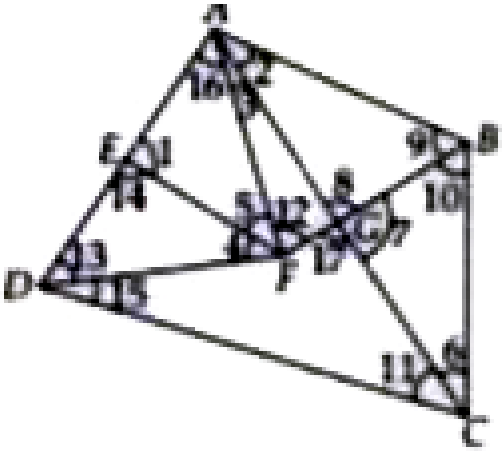
12. From the figure, name:



the line t in two other ways

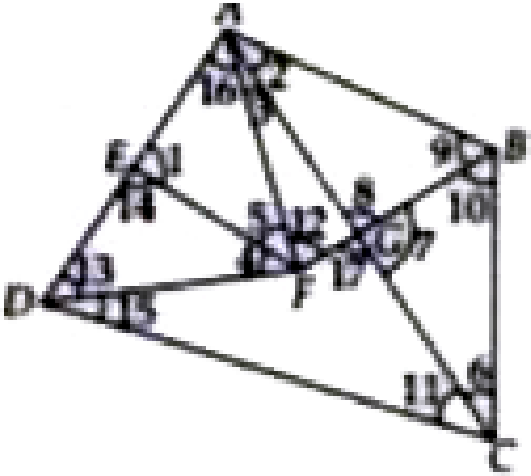
Watch Video Solution

13. In the given figure, name the angles indicated as $\angle 6$



Watch Video Solution

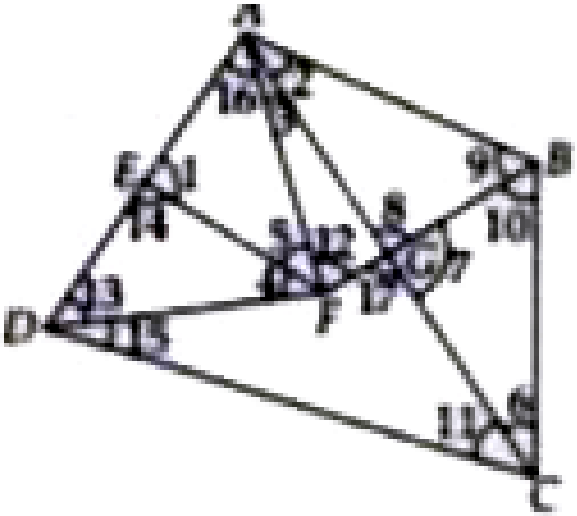
14. In the given figure, name the angles indicated as



$\angle 4$

Watch Video Solution

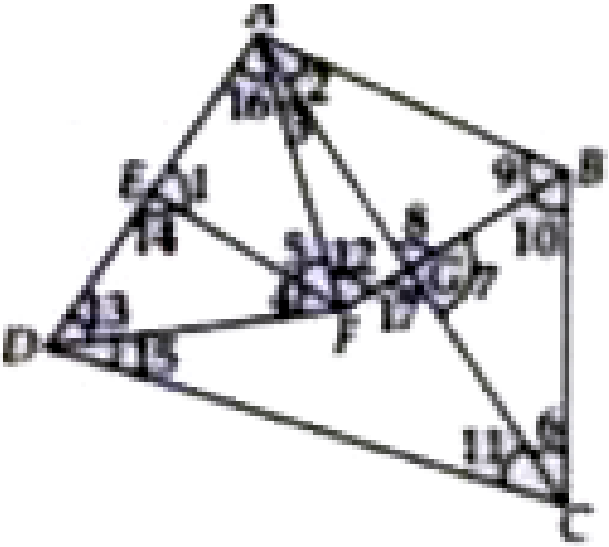
15. In the given figure, name the angles indicated as



$\angle 12$

Watch Video Solution

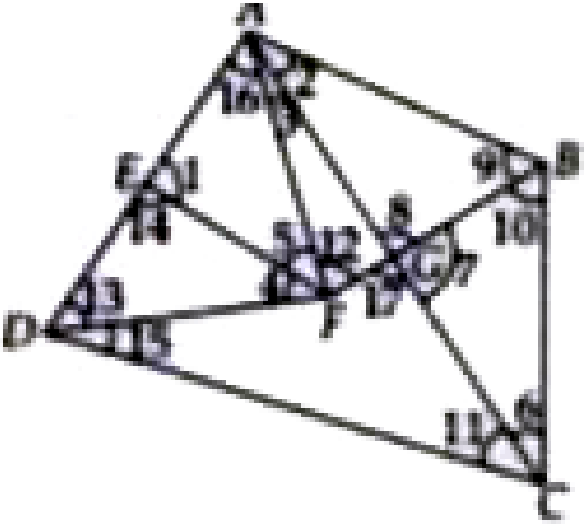
16. In the given figure, name the angles indicated as



$\angle 10$

Watch Video Solution

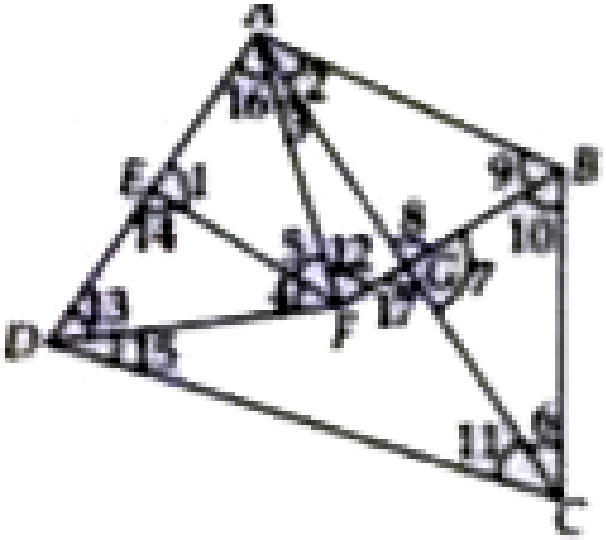
17. In the given figure, name the angles indicated as



$\angle 1$

Watch Video Solution

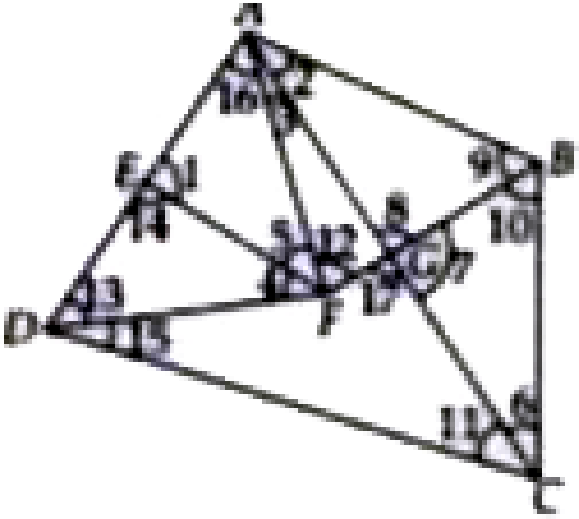
18. In the given figure, name the angles indicated as



$\angle 11$

Watch Video Solution

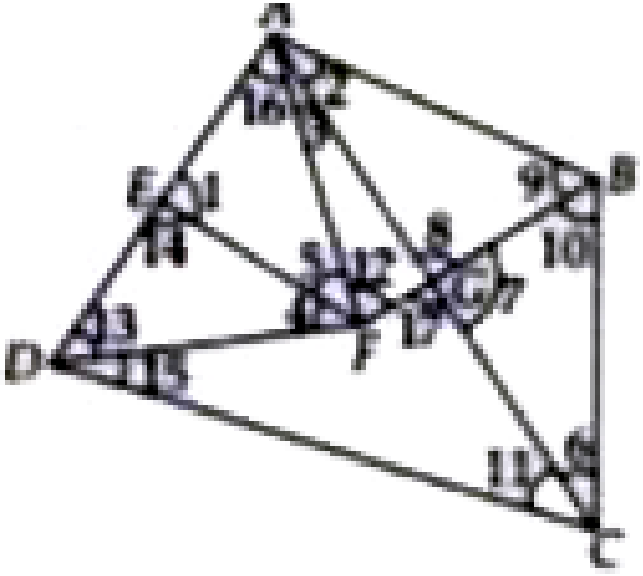
19. In the given figure, name the angles indicated as



$\angle 3$

Watch Video Solution

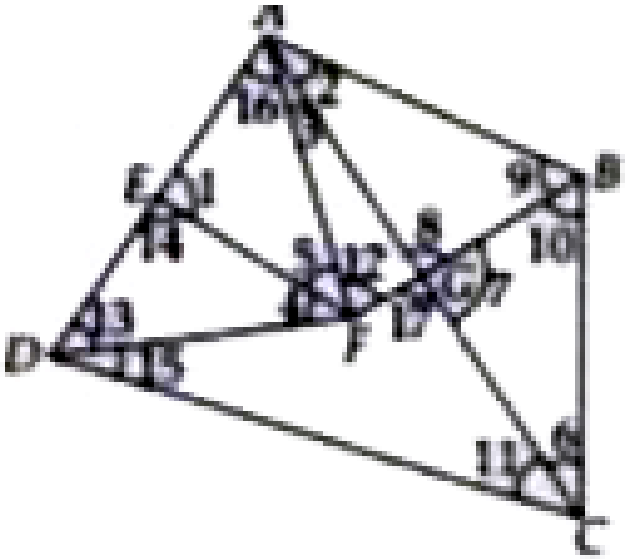
20. In the given figure, name the angles indicated as



$\angle 15$

Watch Video Solution

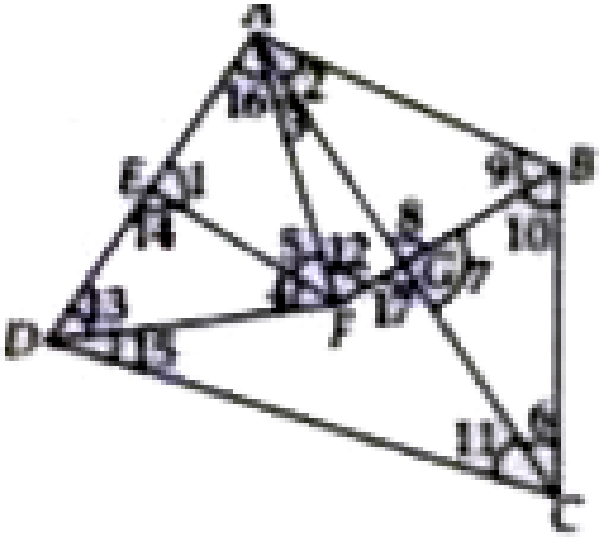
21. In the given figure, name the angles indicated as



$\angle 7$

Watch Video Solution

22. In the given figure, name the angles indicated as



$\angle 2$

Watch Video Solution

23. In a $\triangle$ PQR mark

the points A, B, C in the exterior of $\triangle$ PQR

Watch Video Solution

24. In a $\triangle PQR$ mark

the points X, Y, Z in the interior of $\triangle PQR$

Watch Video Solution

25. In a $\triangle PQR$ mark

the points H, L. on $\triangle PQR$.

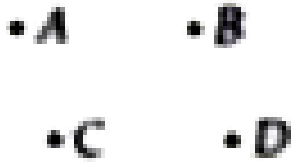
Watch Video Solution

Subjective Problems Integer Numerical Value Type

1. How many lines can pass through two given points?

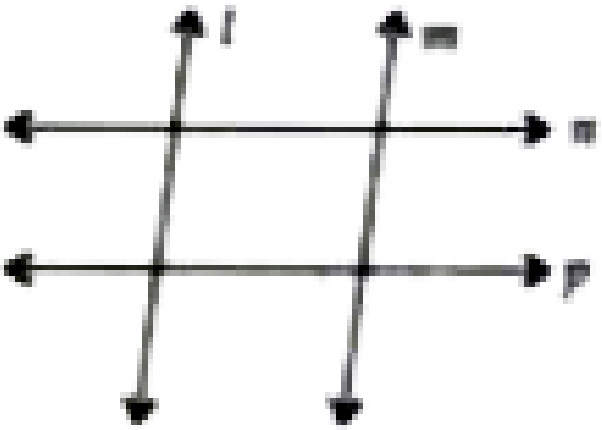
Watch Video Solution

2. How many line segments will we get after joining the points A, B, C and D?



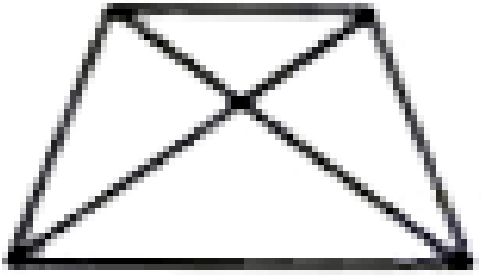
Watch Video Solution

3. Count the pair of intersecting lines.



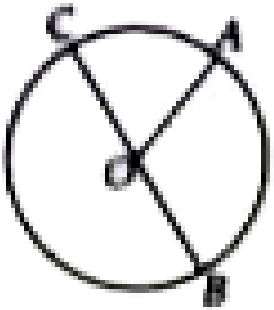
Watch Video Solution

4. How many triangles are there in the given figure?



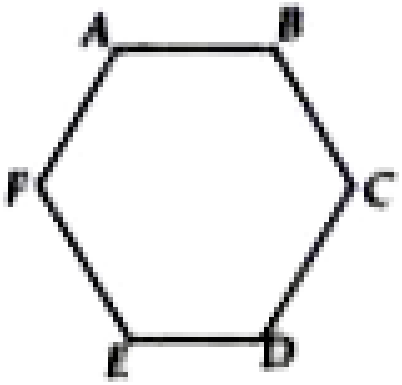
Watch Video Solution

5. If OA=30 cm, then find the radius OB (in cm), where o is the centre of circle.



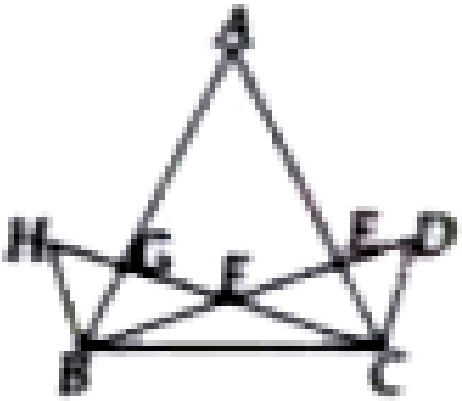
Watch Video Solution

6. How many sides are there in the given polygon?



Watch Video Solution

7. How many points are marked in the shown figure? Name them.

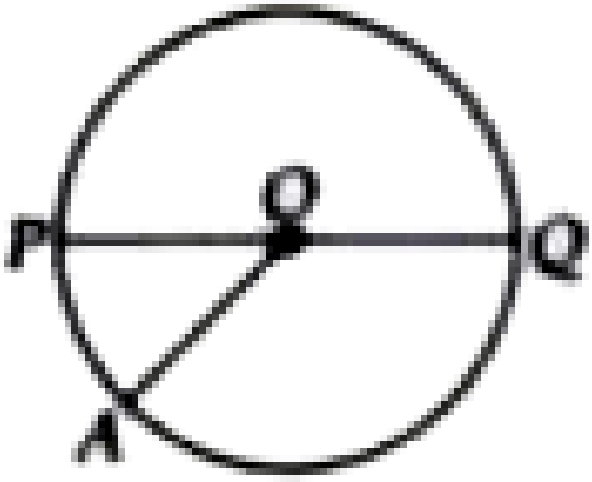


Watch Video Solution

8. In how many directions can a line extended?

Watch Video Solution

9. If OA=12 cm, then find the length of PQ (in cm), where O is the centre of circle.



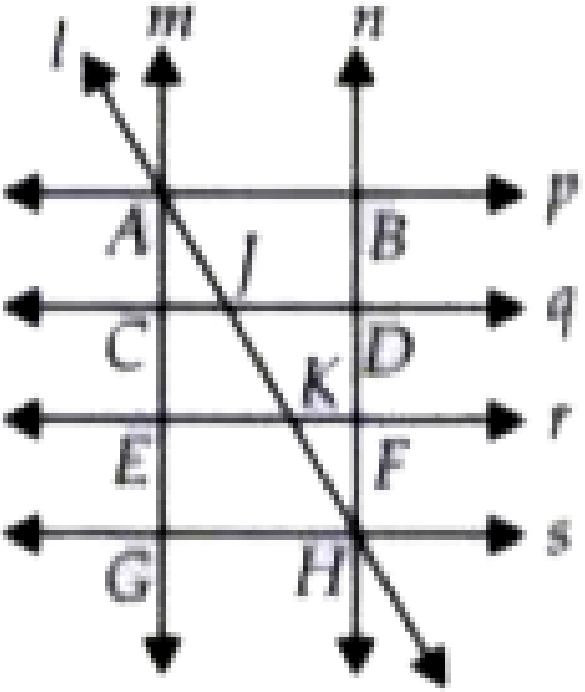
Watch Video Solution

10. A diameter divides the circle into k equal halves. Then find the value of k..

Watch Video Solution

Olympiad Hots Corner

1. Which of the following set of points are collinear?



A. A.J.K.H

B. A.J.E.G

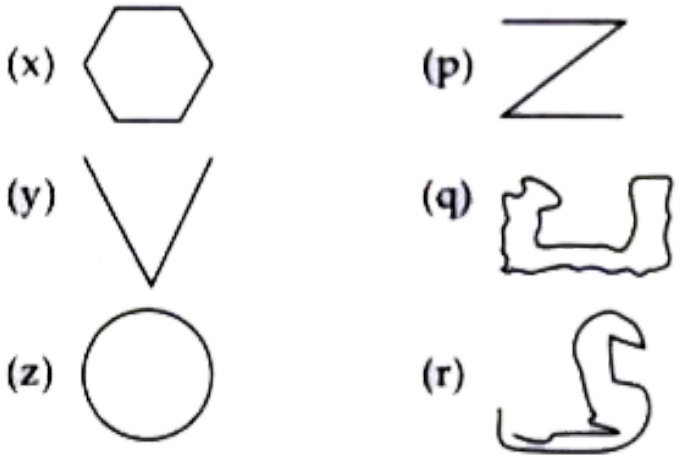
C. B.D. H. E

D. A.J. K. F

Answer: a

Watch Video Solution

2. Classify the following into open and closed curves.



A. (y,p,r) (x,z,q)

B. (y,q,z) (x,p,r)

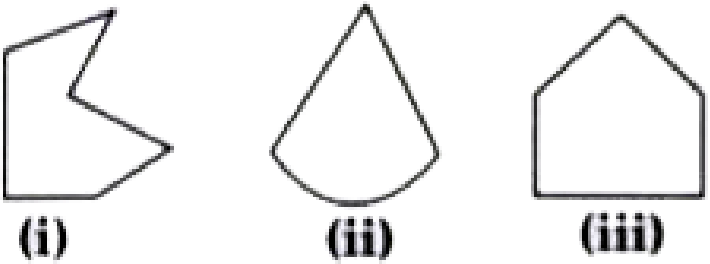
C. (p,q,x) (r,z,y)

D. (r,y,x) (p,q,z)

Answer: a

Watch Video Solution

3. Study the given figures carefully. Which of the above figures are polygons?



A. Only (i)

B. (i) and (ii) only

C. (i) and (iii) only

D. All of these

Answer: c

Watch Video Solution

4. Which of the following statements is/are correct?(1) A sector is the region in the interior of a circle enclosed by an arc on one side and a pair of radii on the other two sides. (ii) A segment of a circle is the region in the interior of the circle enclosed by an arc and a chord. (iii) Diameter is the longest chord of a circle. (iv) A circle is a polygon.

A. (i), (ii) and (iii) only

B. Only (i)

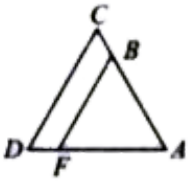
C. Only (ii)

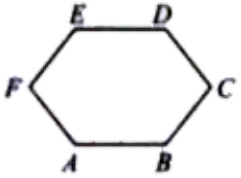
D. None of these

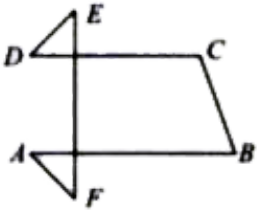
Answer: a

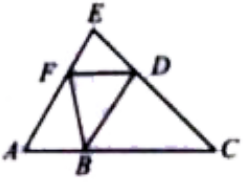
View Text Solution

5. Which of the following figures are not polygons?

(i) 

(ii) 

(iii) 

(iv) 

(v) 

A. (i), (ii) and (v) only

B. (i), (ii) and (iii) only

C. (i), (iii), (iv) and (v) only

D. (i), (ii), (iii) and (iv) only.

Answer: c

View Text Solution

6. Match the columns.

Column-I	Column-
(p)Number of line (s)passing through two given points is	(1)Nine
(Q)Number of rays(s) can be drawn with same intial point is	(2)Zero
(R)The number of points of intersection of three parallel lines is	(3)One
(S)Number of diagonals in a six sided polygon is	(4)Infini

A. $(P) \to (3), (Q) \to (4), (R) \to (2), (S) \to (1)$

B. $(P) \to (3), (Q) \to (1), (R) \to (2), (S) \to (4)$

C. $(P) \to (4), (Q) \to (2), (R) \to (1), (S) \to (3)$

D. $(P) \to (4), (Q) \to (3), (R) \to (2), (S) \to (1)$

Answer: a

Watch Video Solution

7. Which of the following statements is incorrect?

A. Two parallel lines will always intersect.

B. A triangle is a three sided polygon.

C. A line has no end points.

D. The diameter of a circle is double of its radius.

Answer: a

Watch Video Solution

8. Fill in the blanks. Any drawing (straight or non-straight) done without lifting the pencil is a P A Q is the one that does not cross itself. A curve is said to be R if its ends are joined. AS is a simple closed curve made up of line segments only.

A. curve open curve closed line

B. line curve open line

C. curve simplecurve closed polygon

D. curve closedcurve open circles

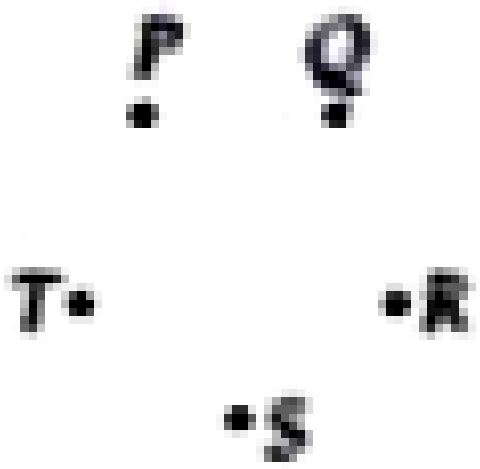
Answer: c

View Text Solution

9. Which of the following sets of points lies in the exterior of the $\angle PQR$?

Watch Video Solution

10. How many line segments can be drawn with any two of the points as end points?



A. 5

B. 7

C. 10

D. 8

Answer: c

 Watch Video Solution