EXERCISE-01

Multiple Choice Questions

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

(1) Point (2) Ray
(3) Line (4) Line segment

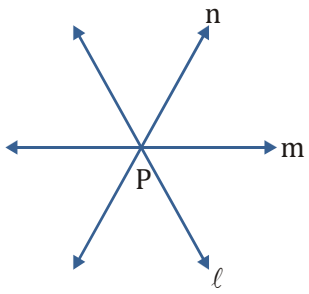
2. The surface of which of the following does not represent a plane?

(1) A book (2) Wall
(3) Floor of your room (4) A football

3. Which of the following can be measured?

(1) Line (2) Ray
(3) Point (4) Line segment

4. In the given figure lines ℓ, m and n have been drawn passing through P. Can we draw more lines through P. If yes, how many?



(1) None (2) One
(3) Five (4) Infinite

5. Which of the following figure has linear boundaries?

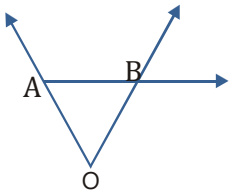
(1)  (2) 

(3)  (4) 

6. Which of the following has end points?

(1) $\overline{AB}$ (2) $\overleftrightarrow{CD}$
(3) $\overrightarrow{BC}$ (4) $\overleftrightarrow{EF}$

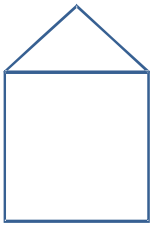
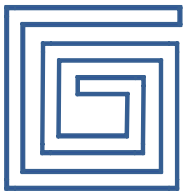
7. Which of the following does not represent a ray in the given figure?



(1) OA (2) OB
(3) BA (4) AB

8. Tell, which of the following is not a simple closed figure?

(1)  (2) 

(3)  (4) 

9. Which of the following is the name of the vertex of $\angle PQR$?

(1) P (2) Q
(3) R (4) None of these

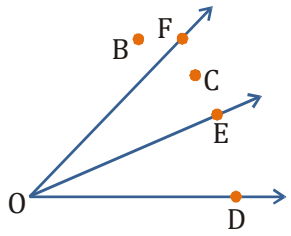
10. Which of the following is another name for $\angle ABC$?

(1) $\angle A$ (2) $\angle CBA$
(3) $\angle ACB$ (4) $\angle CAB$

11. Which of the following is not a pair of adjacent angles of quadrilateral ABCD?

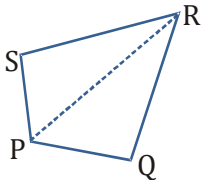
(1) $\angle A, \angle B$ (2) $\angle C, \angle D$
(3) $\angle B, \angle D$ (4) $\angle D, \angle A$

12. The point that is in the interior of ∠FOE is



(1) D (2) E
(3) C (4) O

13. In a quadrilateral PQRS, the part PR is known as:



(1) Angle (2) Side
(3) Diagonal (4) Triangle

14. A quadrilateral has
(1) 2 diagonals, 3 angles
(2) 4 diagonals, 4 angles
(3) 2 diagonals, 4 angles
(4) 3 diagonals, 4 angles

15. A cricket ground is in the shape of a quadrilateral. If a batsman hits a four, then the ball has to touch a point
(1) In the exterior of the quadrilateral
(2) On the quadrilateral
(3) In the interior of the quadrilateral
(4) None of these

16. The complete distance around a circle is called the
(1) Sector (2) Quadrant
(3) Circumference (4) Segment

17. One-fourth part of a circle is known as a
(1) Semi-circle (2) Major segment
(3) Sector (4) Quadrant

18. The longest chord of a circle is equal to its
(1) Radius (2) Diameter
(3) Circumference (4) Secant

19. The centre of the circle always lies in the interior of the
(1) Minor segment (2) Semi-circle
(3) Major segment (4) Minor arc

20. The radius of a circle is 3 cm. Its diameter is
(1) 1.5 cm (2) 9 cm
(3) 4.5 cm (4) 6 cm

True or false

1. Only one ray can be drawn with a given initial point.

2. Two planes intersect in a line.

3. The interior of a triangle and the triangle itself make the triangular region.

4. The radius is the longest chord of the circle.

5. Diameter = $\frac{1}{2}$ × radius.

6. Concentric circles have the same centre.

7. The maximum number of points of intersection of three lines is three.

8. The surface of water in a swimming pool, when calm, represents a plane.

9. The line segment joining a vertex to the midpoint of the side opposite to the vertex is called altitude of a triangle.

10. Two lines always intersect if they have one or more point in common.

Fill in the blanks

1. A dot gives us an idea of a _____.

2. A wall gives us an idea of a _____.

3. Two lines lying in a plane _____if they have one point in common.

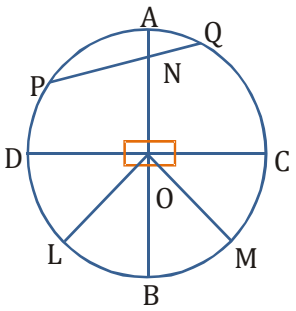
4. A line has _____ end points, a ray has _____ end point and a line segment has _____ end points.

5. A quadrilateral has _____ sides and _____ vertices.

6. The measure of each angle of a convex quadrilateral is _____ 180°.

7. Two sides of a quadrilateral which are not adjacent are _____ sides.

Use Fig. for Q. No.8, 9 & 10.



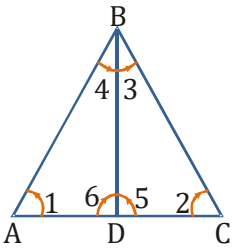
8. COA, AOD, DOB, BOC are four _____ of the circle.

9. PAQNP is a minor _____ of the circle.

10. PBQNP is a _____ segment of a circle.

Match the column

In the given figure, match the angle indicated by a number by their three letter name.



No.	Column – I		Column – II
(1)	∠1	(a)	∠DBA
(2)	∠2	(b)	∠CBD
(3)	∠3	(c)	∠ADB
(4)	∠4	(d)	∠DCB
(5)	∠5	(e)	∠BAD
(6)	∠6	(f)	∠BDC

ANSWER KEY

Multiple choice questions

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	3	4	4	4	3	1	3	3	2	2	3	3	3	3	2
Question	16	17	18	19	20										
Answer	3	4	2	3	4										

True or false

1. False 2. True 3. True 4. False
5. False 6. True 7. True 8. True
9. False 10. True

Fill in the blanks

1. Point 2. Plane 3. Intersect 4. No, One, Two
5. Four, Four 6. Less than 7. Opposite 8. Quadrants
9. Segment 10. Major

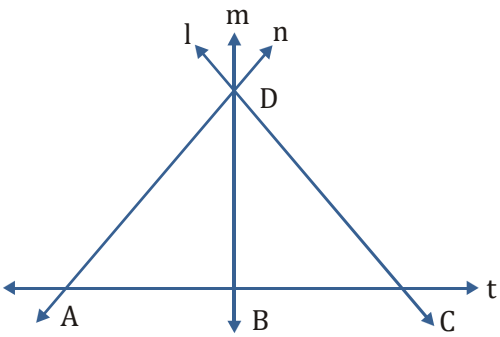
Match the column

(1) → e ; (2) → d ; (3) → b ; (4) → a ; (5) → f ; (6) → c

EXERCISE-02

Very short answer type questions

1. Study the given figure and answer the following.



(i) Name line l in two other ways.

(ii) Name line m in two other ways.

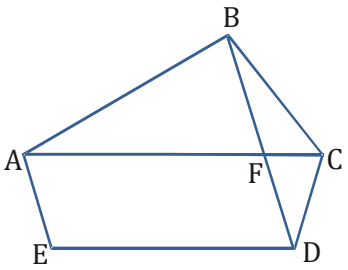
(iii) Name a line segment on line n.

(iv) Name 3 line segments on line t.

(v) Name 2 rays on line l.

(vi) Name 4 rays on line t.

2. Study the given figure and answer the following.



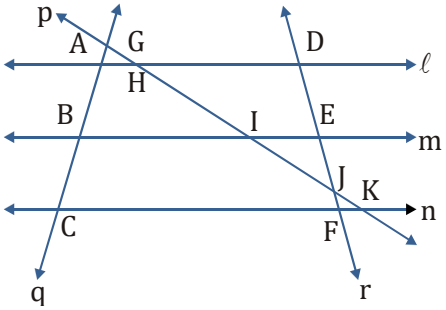
(i) Name the line segments in the figure that intersect at E.

(ii) Name the line segments that intersect at D.

(iii) What other line segments can be drawn?

(iv) Name the point of intersection of segments AC and BD.

3. Study the given figure and answer the following.



(i) All pairs of parallel lines.

(ii) All pairs of intersecting lines.

(iii) Lines whose point of intersection is I.

(iv) Lines whose point of intersection is D.

(v) Lines whose point of intersection is E.

(vi) Lines whose point of intersection is A.

4. (i) What shape is a full moon?

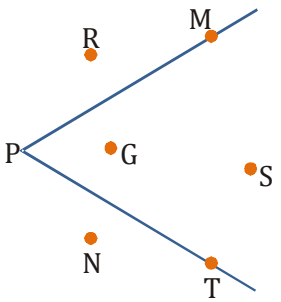
(ii) What shape are the wheels of the scooter?

5. From the figure, list the points which are

(i) in the interior of $\angle P$,

(ii) in the exterior of $\angle P$, and

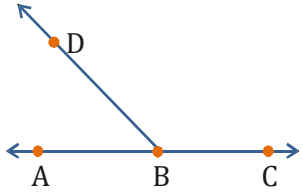
(iii) lie on $\angle P$.



Short answer type questions

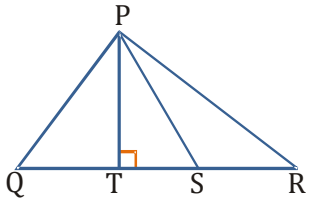
6. Give three examples of angle from your environment.

7. In the diagram AC is a line. Are BA, BC and BD rays?



There are three angles in the figure. One is ∠ABC. What are the others.

8. In the triangle drawn, write :



(i) The side opposite to vertex P, in ΔPQR.

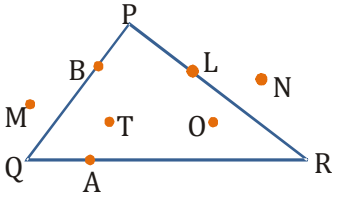
(ii) The altitude from vertex P, in ΔPQR.

(iii) The angle opposite to side PQ, in ΔPQT.

(iv) The vertex opposite to side PR in ΔPSR.

(v) The median from vertex P, in ΔPQR, where QS = SR

9. From the figure name the points which are



(i) In the triangular region PQR.

(ii) Lie on the ΔPQR.

(iii) In the exterior of ΔPQR.

10. Classify each of the following as angle, line segment, line or ray.

(i) ∠A (ii) ∠BAC

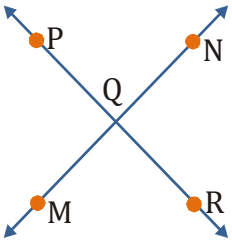
(iii) $\overrightarrow{AB}$ (iv) $\overleftrightarrow{BC}$

(v) $\overline{AC}$ (vi) $\overline{BC}$

(vii) ∠C (viii) $\overrightarrow{AC}$

(ix) $\overline{AB}$ (x) $\overrightarrow{BC}$

11. Shamla wrote name of the above lines as follows:

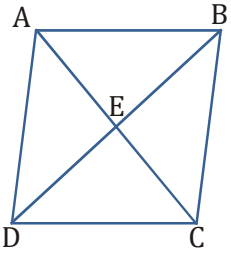


$\overleftrightarrow{PQ}$, $\overleftrightarrow{QR}$, $\overleftrightarrow{PR}$, $\overleftrightarrow{QP}$, $\overleftrightarrow{PM}$, $\overleftrightarrow{RQ}$, $\overleftrightarrow{RP}$,

$\overleftrightarrow{MQ}$, $\overleftrightarrow{NR}$, $\overleftrightarrow{QN}$, $\overleftrightarrow{MN}$, $\overleftrightarrow{NQ}$, $\overleftrightarrow{QM}$, $\overleftrightarrow{NM}$

Two of these names are incorrect. Which are they?

12. Study the given figure and answer the following.



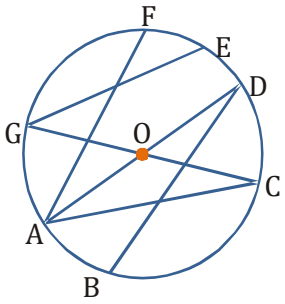
(i) Name the angle EDC in three different ways.

(ii) Name the vertex of angle AEB?

(iii) How many angles are formed at the vertex D?

(iv) How many triangles can you locate?

13. Given below is a circle with centre O.



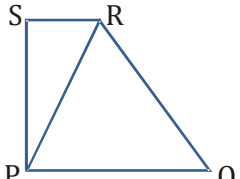
(i) Name any two chords.

(ii) Name two diameters.

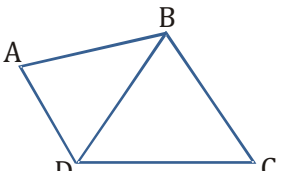
(iii) Name two radii.

(iv) Name any two arcs.

14. Name two pairs of adjacent angles in each of the figures given below.



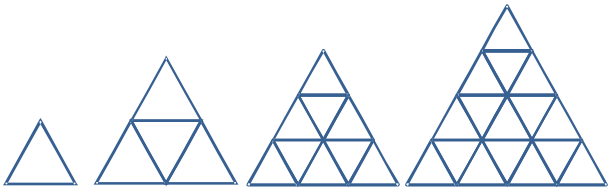
(i)



(ii)

Long answer type questions

15. Find the number of triangles in each figure.



(i) (ii) (iii) (iv)

ANSWER KEY

Very short answer type questions

1. (i) $\overleftrightarrow{DC}, \overleftrightarrow{CD}$, (ii) $\overleftrightarrow{DB}, \overleftrightarrow{BD}$ (iii) $\overline{AD}$

(iv) $\overline{AB}$ (or) $\overline{BA}, \overline{BC}$ (or $\overline{CB}$), $\overline{AC}$ (or) $\overline{CA}$ (v) $\overrightarrow{CD}, \overrightarrow{DC}$

(vi) $\overrightarrow{AB}, \overrightarrow{AC}, \overrightarrow{BC}, \overrightarrow{CA}$

2. (i) $\overline{AE}, \overline{ED}$ (ii) $\overline{ED}, \overline{DC}$ and $\overline{BD}, \overline{DC}$ (iii) $\overline{AD}, \overline{BE}, \overline{CE}, \overline{EF}$

(iv) F

3. (i) ℓ, m; m, n; ℓ, n

(ii) ℓ, p ; m, p ; n, p ; ℓ, r ; m, r ; n, r ; p, r ; ℓ, q ; m, q ; n, q ; q, p ; q, r

(iii) m, p (iv) ℓ, r (v) m, r (vi) ℓ, q

4. (i) Circle (ii) Circle

5. (i) G, S (ii) N, R (iii) M, P, T

Short answer type questions

6. (i) The blades of a scissors when opened form an angle.

(ii) The rays of the morning sun falling on the ground, make an angle with the ground.

(iii) A pillar standing on the ground makes an angle with it.

7. Yes ; $\angle ABD$, $\angle DBC$

8. (i) QR (ii) PT (iii) $\angle PTQ$ (iv) S (v) PS

9. (i) Point O, T (ii) Point B, A, L (iii) Point M, N

10. (i) Angle (ii) Angle (iii) Ray (iv) Line

(v) Line segment (vi) Line segment (vii) Angle (viii) Ray

(ix) Line segment (x) Ray

11. $\overleftrightarrow{PM}, \overleftrightarrow{NR}$

12. (i) $\angle BDC, \angle CDE, \angle CDB$ (ii) E (iii) 3 (iv) 8

13. (i) $\overline{AF}$ and $\overline{GE}$ (ii) $\overline{AD}$ and $\overline{CG}$ (iii) $\overline{OD}$ and $\overline{OC}$

(iv) $\overset{\frown}{FED}$ and $\overset{\frown}{DCB}$

14. (i) $\angle SPR$ and $\angle RPQ$, $\angle SRP$ and $\angle PRQ$ (ii) $\angle ABD$ and $\angle DBC$, $\angle ADB$ and $\angle BDC$

Long answer type questions

15. (i) 1 (ii) 5 (iii) 13 (iv) 27

Exercise-01 Solutions

Multiple choice questions

1. Option (3)

Point: A point has no dimension points are exact locations in space and are named by using capital letters i.e., A, B and C.

Ray: The ray $\overrightarrow{AC}$ consists of the end point A and all the points on $\overrightarrow{AC}$ that lie on the same side of A as C.

Line: A line has one dimension. Through any two points, there is exactly one line.

Line segment: Consists of the endpoints A and B and written as $\overline{AB}$.

Line is not found in this figure because it does not extend in both the directions as A is the end point.

2. Option (4)

A plane surface has two dimensions. It is represented by a shape that looks like a floor or a wall, but it extends without end.

Therefore; football does not represent a plane as it is a simple closed curve like shaped.

3. Option (4)

Line segment can be measured, since it consists of the endpoints A and B.

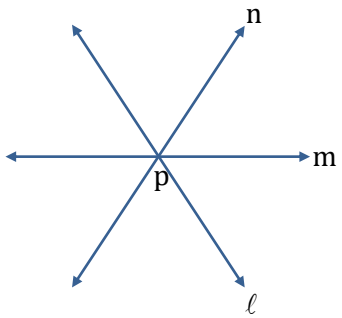
Line is not of finite length because it is extended in both the directions infinitely.

Ray is also not of finite length as it is extended in one direction infinitely.

Point has no dimension, so we cannot measure it.

4. Option (4)

Yes, we can draw infinite lines passing through point "P".



5. Option (3)

(1)  → A circle has no linear dimension.

∴ It has no linear boundaries.

(2) →  This is also a curve having no linear dimension.

∴ It has no linear boundaries.

(3)  → It is in the form of lines and lines has one dimension.

∴ It has linear boundaries.

(4)  → it has no linear boundaries.

6. Option (1)

Line has no end points and to represent a line we denote it as :

$\overleftrightarrow{CD}, \overleftrightarrow{BC}, \overleftrightarrow{EF}$

Then, $\overline{AB}$ is a line segment that has end points.

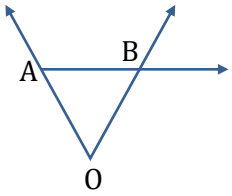
7. Option (3)

$\overrightarrow{OA}$ is a ray.

$\overrightarrow{OB}$ is a ray.

$\overrightarrow{AB}$ is ar ray.

But



BA is not a ray; it is a line segment.

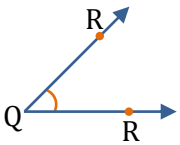
8. Option (3)

Simple closed curve: A connected curve that does not cross itself and ends at the same point where it begins.

9. Option (2)

An angle is made up of two rays that have the same end point. The end point at which the two rays meet is called the vertex of the angle.

∠PQR → vertex is "Q".

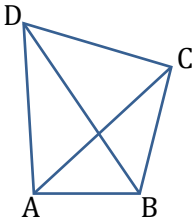


10. Option (2)

Another name for ∠ABC is ∠CBA

11. Option (3)

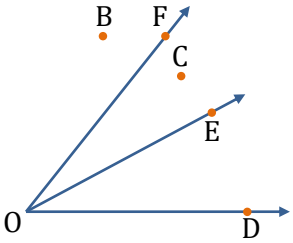
A quadrilateral is a four-sided polygon. It has 4 sides and 4 angles.



Angles such as ∠A and ∠B having one common side AB are called adjacent angles.
∠B, ∠D are not adjacent angles.

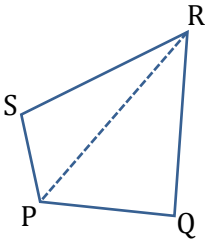
12. Option (3)

The point that is in the interior of ∠FOE is "C" .



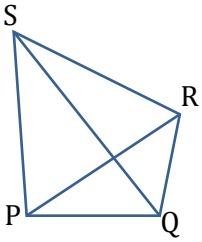
13. Option (3)

In a quadrilateral PQRS, the part PR is the line segment known as the diagonals.



14. Option (3)

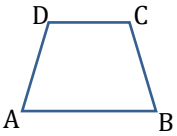
A quadrilateral PQRS is an example.



Therefore; PR and QS are the diagonals i.e.; 2 diagonals and it has 4 angles i.e.,
∠P, ∠Q, ∠R and ∠S.

15. Option (2)

Let us consider ABCD as a quadrilateral/cricket ground.



If a batsman hits a four, then the ball has to touch a point on the quadrilateral ABCD.

16. Option (3)

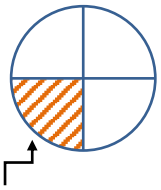
The complete distance around a circle is known as the perimeter or we can say the length of the boundary of the interior of a circle is known as CIRCUMFERENCE.

17. Option (4)

A diameter divides a circle into two equal parts which are called semicircles.

 $\left(\frac{1}{2}\right)$ part of a circle

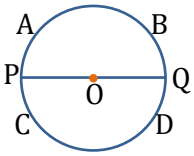
If two radii are at right angles to each other, the sector is called a quadrant.



$\left(\frac{1}{4}\right)^{th}$ part of a circle.

One-fourth part of a circle is known as quadrant.

18. Option (2)



The longest chord of a circle is equal to its diameter. Among all of these chords, PQ is the longest chord i.e.; the diameter of the circle.

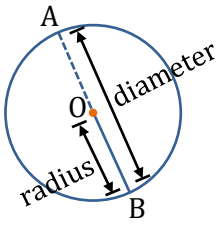
19. Option (3)

The centre of the circle always lies in the interior of the major segment.

20. Option (4)

Radius of a circle is 3 cm. Then, diameter

= 2 × radius



here AB = diameter

OA and OB = radius

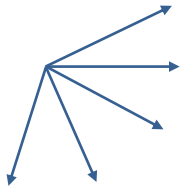
∴ d = 2 × radius

d = 2 × 3

diameter = 6 cm

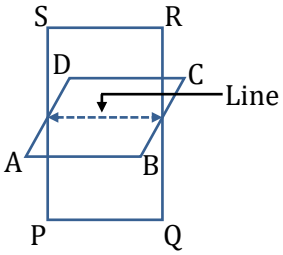
True or false

1. False



So many rays can be drawn with a given initial point.

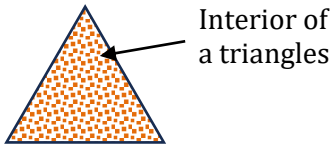
2. True



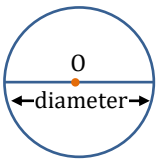
Two planes intersect in a line

3. True

This interior region and the triangle ABC itself makes the triangular region



4. False



Diameter is the longest chord of the circle.

5. False

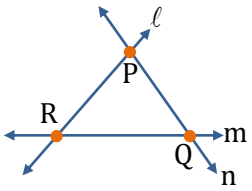
Diameter $\neq \frac{1}{2}$ × radius.

(Diameter = 2 × radius)

6. True

Two or more circles drawn with the same centre and varying radius is called concentric circles.

7. **True**



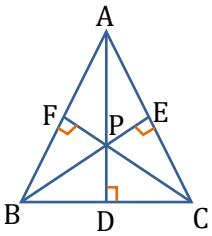
Lines ℓ, m and n and the maximum number of points of intersection of three lines is three.

8. **True**

A plane has two dimensions.

Similarly, the surface of water in swimming pool, when calm, represents a plane.

9. **False**



An altitude of a triangle is the perpendicular drawn from a vertex to the opposite side.

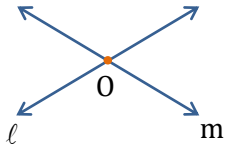
Every triangle has three altitudes.

AD, EB and CF are known as the altitude of the triangle.

Point "P" is called the orthocenter.

10. **True**

Lines "ℓ" and "m" intersect at the point "O".

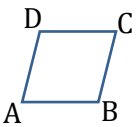


Fill in the blanks

1. A dot gives us an idea of a <u>point</u>.

P Q P and Q are points.

2. A wall gives us an idea of a <u>plane.</u>



3. Two lines lying in a plane <u>intersect</u> if they have one point in common.

4. A line has no end points; a ray has one end point and a line segment has two end points.

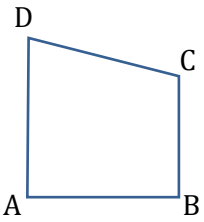
(Line $\overleftrightarrow{AB}$)

(ray $\overrightarrow{AB}$)

(line segment $\overline{AB}$)

5. A quadrilateral has four sides and four vertices.

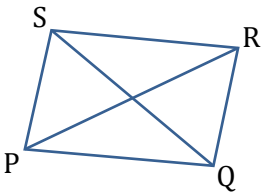
AB, BC, CD and DA are sides and A, B, C and D are the vertices



6. The measure of each angle of a convex quadrilateral is less than 180°

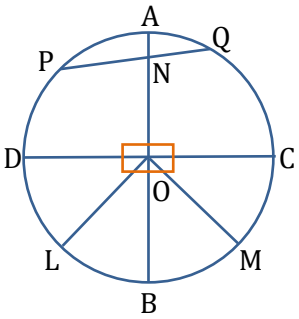
7. Two sides of a quadrilateral which are not adjacent are opposite sides.

PQ, PS
PQ, QR
QR, RS
RS, SP
} adjacent sides



Sides having no common vertices are called as opposite sides.

8. COA, AOD, DOB, BOC four quadrants of the circle.



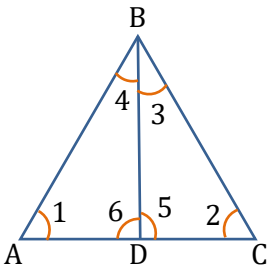
Use this figure for Q(s) 8, 9 and 10

9. PAQNP is a minor segment of the circle.

10. PBQNP is a major segment of a circle.

Match the column

1.



(1) $\rightarrow$ e

$\angle 1 = \angle BAD$

(2) $\rightarrow$ d

$\angle 2 = \angle DCB$

(3) $\rightarrow$ b

$\angle 3 = \angle CBD$

(4) $\rightarrow$ a

$\angle 4 = \angle DBA$

(5) $\rightarrow$ f

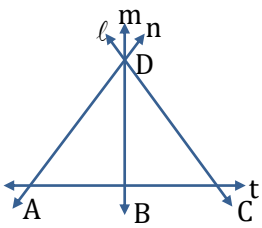
$\angle 5 = \angle BDC$

(6) $\rightarrow$ c

$\angle 6 = \angle ADB$

Exercise-02 Solutions

1.



(i) Line l = $\overleftrightarrow{CD}, \overleftrightarrow{DC}$

(ii) line m = $\overleftrightarrow{DB}, \overleftrightarrow{BD}$

(iii) $\overline{AD}$ is the line segment on line n.

(iv) $\overline{AB}$ (or $\overline{BA}$)

$\overline{BC}$ (or $\overline{CB}$)

$\overline{AC}$ (or $\overline{CA}$)

(v) Ray starting from C and extending towards "D" i.e. $\overrightarrow{CD}$

Ray starting from D and extending towards "C" i.e.; $\overrightarrow{DC}$

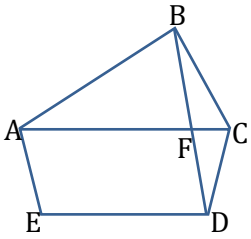
(vi)  i.e; $\overrightarrow{AB}$

 i.e; $\overrightarrow{BC}$

 i.e.; $\overrightarrow{AC}$

 i.e; $\overrightarrow{CA}$

2. **From the given figure**



(i) Line segments that intersect at E are $\overline{AE}$ and $\overline{DE}$

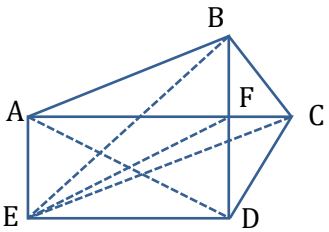
(ii) $\overline{ED}$, $\overline{DC}$ and $\overline{BD}, \overline{DC}$

(iii) line segment from B to E; $\overline{BE}$

line segment from A to D; $\overline{AD}$

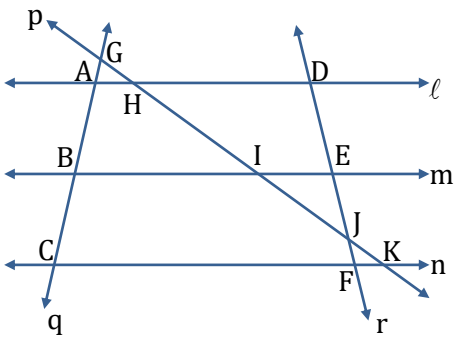
line segment from C to E; $\overline{CE}$

line segment from E to F; $\overline{EF}$



(iv) F is the point of intersection.

3.



(i) Parallel lines are the lines that do not meet even if extended in either of the directions infinitely. We use "||" to denote parallel lines.

$\therefore \ell \parallel m, m \parallel n$ and $\ell \parallel n$

(ii) Intersecting lines are the lines which have one or more than one point in common.

$\therefore$ ℓ, p; ℓ, r; ℓ, q

m, p; m, r; m, q

n, p; n, r; n, q

p, r; q, p; q, r

are the pairs of intersecting lines.

(iii) When line "p" intersects line "m", then we get the point of intersection "I".

$\therefore$ m, p

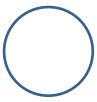
(iv) Lines whose point of intersection is D.

Line ℓ, r when intersects we get an intersection point i.e.; D

(v) Line m, line r.

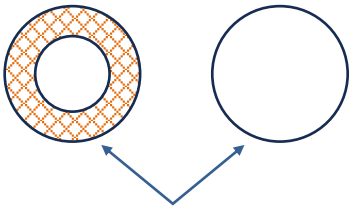
(vi) Line q, line ℓ

4. (i) A full moon is in the shape of a circle.



Full moon

(ii) The wheels of a scooter are also in the shape of a circle.



Wheel of the scotter

5. (i) interior of ∠P

• G, • S

Point G and Point S

(ii) exterior of ∠P

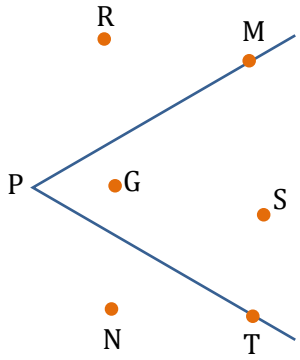
⇒ • R, • N

Point R and Point N

(iii) lie on ∠P

⇒ • M, • T, • P

⇒ Point M, Point T and Point P.



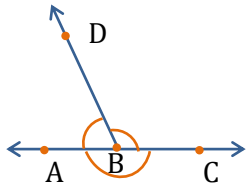
6. (i) The blades of a scissors when opened form an angle.

(ii) The rays of the morning sun falling on the ground, make an angle with the ground.

(iii) A pillar standing on the ground makes an angle with it.

7. Yes; BA, BC and BD are rays.

∵ $\overrightarrow{BA}$ = B is the one endpoint and extending in the direction of "A"



$\overrightarrow{BC}$ = B is the endpoint and extending towards "C".

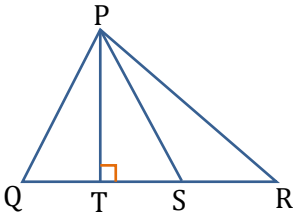
$\overrightarrow{BD}$ = B is the endpoint and extending towards "D".

Three angles in this figure are:

∠ABD, ∠DBC and ∠ABC

8. (i) Side opposite to P, in ΔPQR is QR.

(ii) altitude from vertex P, in ΔPQR is PT.

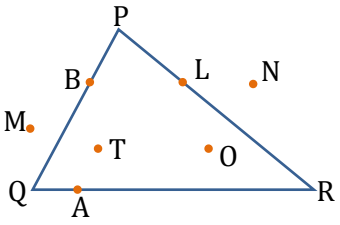


(iii) Angle opposite to side PQ, in ΔPQT is ∠PTQ.

(iv) Vertex opposite to side PR in ΔPSR is S.

(v) Median from vertex P, in PS.

9. (i) The points inside the triangle are known as points in the triangular region i.e.;

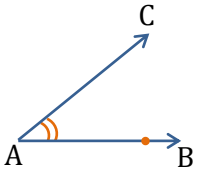


Point O and Point T

(ii) The points that lies on the sides of the triangle PQR are the points lies on it i.e.; Point B, Point A, Point L.

(iii) The points that are outside of the triangle is known as the points in the exterior region, i.e.; point M, Point N.

10. (i) $\angle A$ = angle



(ii) $\angle BAC$ = angle

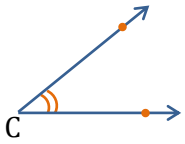
(iii) $\overrightarrow{AB}$ = ray

(iv) $\overleftrightarrow{BC}$= line extending in both directions

(v) $\overline{AC}$= line segment

(vi) $\overline{BC}$ = line segement

(vii) $\angle C$ = angle

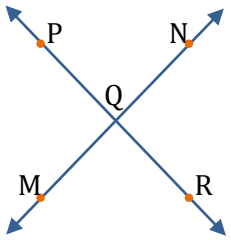


(viii) $\overrightarrow{AC}$ = ray

(ix) $\overline{AB}$ = line segment

(x) $\overrightarrow{BC}$ = ray

11.



$\overleftrightarrow{PQ}$ = line

$\overleftrightarrow{QR}$ = line

$\overleftrightarrow{PR}$ = line

$\overleftrightarrow{QP}$ = line

$\overleftrightarrow{PM}$ = not al line because they are not connected with each other.

$\overleftrightarrow{RQ}$ = line

$\overleftrightarrow{RP}$ = line

$\overleftrightarrow{MQ}$ = line

$\overleftrightarrow{NR}$ = not a line because they are not connected with each other.

$\overleftrightarrow{QN}$ = line

$\overleftrightarrow{MN}$ = line

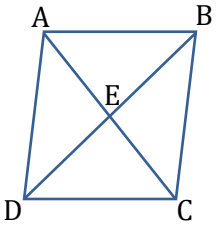
$\overleftrightarrow{NQ}$ = line

$\overleftrightarrow{QM}$ = line

$\overleftrightarrow{NM}$ = line

So, $\overleftrightarrow{PM}, \overleftrightarrow{NR}$ not line.

12.



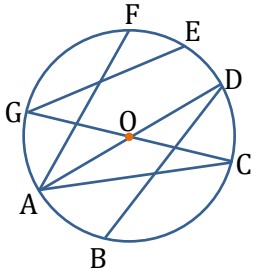
(i) ∠EDC can be named as ∠CDE, ∠BDC and ∠CDB.

(ii) E is the vertex of ∠AEB

(iii) Three angles are formed at vertex D i.e. ∠ADB, ∠BDC and ∠ADC.

(iv) Eight triangles i.e., ΔDEC, ΔAEB, ΔAED, ΔBEC, ΔADC, ΔABC, ΔBAD and ΔBCD

13. (i) Chords are the line segment joining any two points on a circle



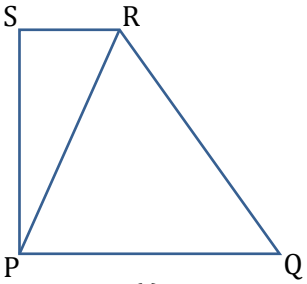
Chords of this circle are: $\overline{AF}, \overline{GE}, \overline{BD}, \overline{AC}$ etc.

(ii) Diameter is the longest chord of the circle i.e.; $\overline{AD}$ and $\overline{CG}$

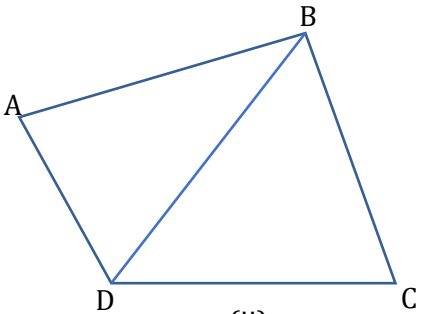
(iii) Radii means radius which is the distance from the centre of the circle to any point on the circumference of the circle i.e.; $\overline{OD}$ and $\overline{OC}$ are the radii.

(iv) Arcs is a continuous part of the circumference of the circle i.e. are FED or $\overset{\frown}{FED}$ and DCB or $\overset{\frown}{DCB}$.

14.



(i)



(ii)

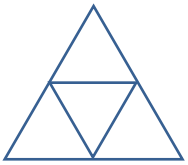
Angles having one common side in between them are called as adjacent angles.

$\Rightarrow$ $\angle SPR$ and $\angle RPQ$ are adjacent angles in figure (i)

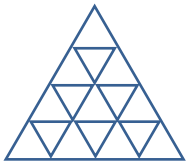
$\angle SRP$ and $\angle PRQ$ are another pair of adjacent angles in figure (i)

$\angle ABD$ and $\angle DBC$ are pair of adjacent angles and $\angle ADB$ and $\angle BDC$ are another pair of adjacent angles.

15. (i)  = 1 (one)

(ii)  = 5 (five)

(ii)  = 13 (thirteen)

(iv)  = 27 (twenty seven)