

ONLINE MATHS CLASS- X - 14 (21 / 07 /2021)

2 . CIRCLES - CLASS- 2 - WORKSHEET - ANSWER

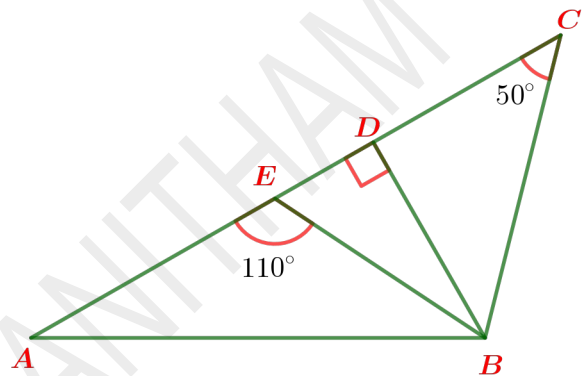
Important point .

- The angle formed by joining the end points of the diameter of a circle to a point inside the circle is greater than 90° , on the circle is 90° and outside the circle is less than 90°

1. If a circle is drawn with AB as diameter ,

- Where will be the position of D ?
- Where will be the position of C ?
- Where will be the position of E ?

(inside the circle , on the circle ,
outside the circle)

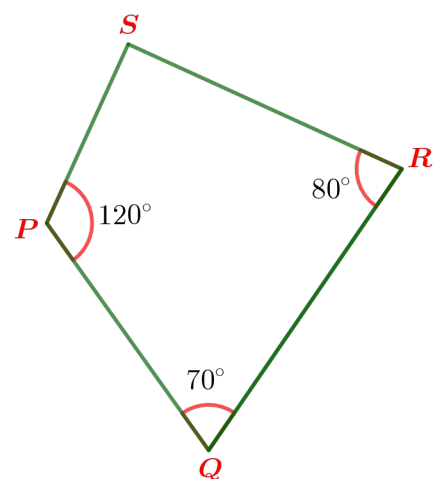


Answer

- D is on the circle .
- C is outside the circle .
- E is inside the circle .

2. In quadrilateral PQRS ,

- What is the measure of $\angle S$?
- Where will be the position of S , if a circle is drawn with PR as diameter ?
- Where will be the position of P , if a circle is drawn with QS as diameter ?
- Where will be the position of R, if a circle is drawn with QS as diameter ?



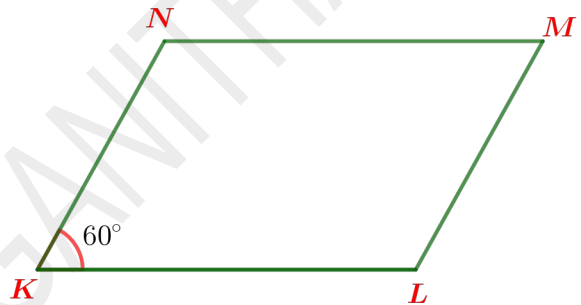
(inside the circle , on the circle , outside the circle)

Answer

- a) $\angle S = 360 - (120 + 70 + 80) = 360 - 270 = 90^\circ$ (Sum of the angles of a quadrilateral is 360°)
- b) If a circle is drawn with PR as diameter , S is on the circle .
- c) If a circle is drawn with QS as diameter , P is inside the circle .
- d) If a circle is drawn with QS as diameter , R is outside the circle .

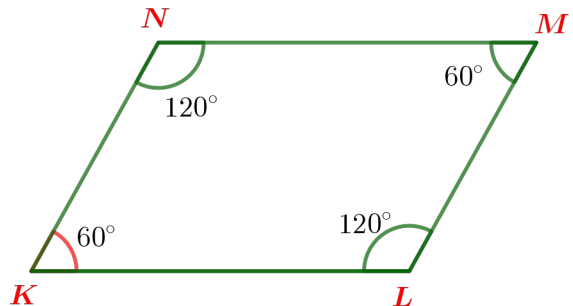
3. In parallelogram KLMN

- a) What is the measure of $\angle M$?
- b) Where will be the position of M , if a circle is drawn with LN as diameter ?
- c) What is the measure of $\angle L$?
- d) Where will be the position of N , if a circle is drawn with KM as diameter ?
(inside the circle , on the circle , outside the circle)



Answer

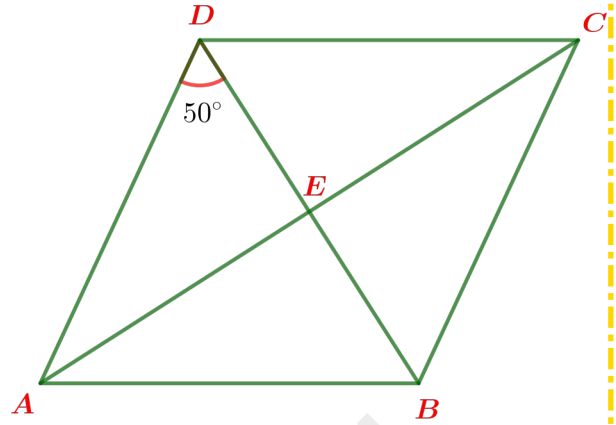
- a) $\angle M = 60^\circ$ (Opposite angles of a parallelogram are equal)
- b) If a circle is drawn with LN as diameter , M is outside the circle .
- c) $\angle L = 120^\circ$ (Co-interior angles of a parallelogram are supplementary)
- d) $\angle N = 120^\circ$ (Opposite angles of a parallelogram are equal)
- If a circle is drawn with KM as diameter , N is inside the circle .



4. In the figure ABCD is a rhombus .

The diagonals intersect at E .

- What is the measure of $\angle AED$?
- Where will be the position of E , if a circle is drawn with AD as diameter ?
- What is the measure of $\angle DAE$?
- Where will be the position of A , if a circle is drawn with BD as diameter ?
- Where will be the position of D , if a circle is drawn with AC as diameter ?



(inside the circle , on the circle , outside the circle)

Answer

a) $\angle AED = 90^\circ$ (Diagonals of a parallelogram perpendicular to each other)

b) If a circle is drawn with AD as diameter ,
E is on the circle .

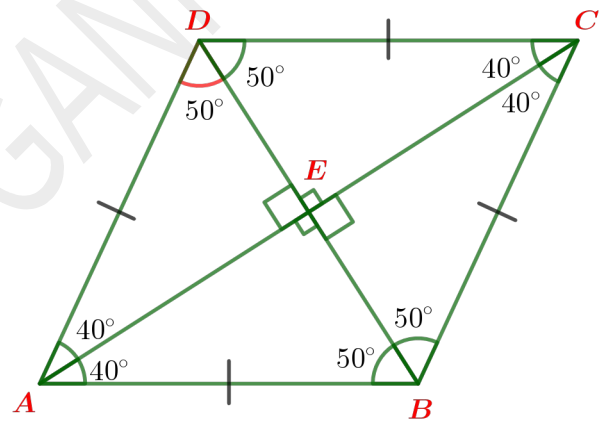
c) $\angle DAE = 40^\circ$

d) $\angle BAD = 40 + 40 = 80^\circ$

If a circle is drawn with BD as diameter , A is outside the circle .

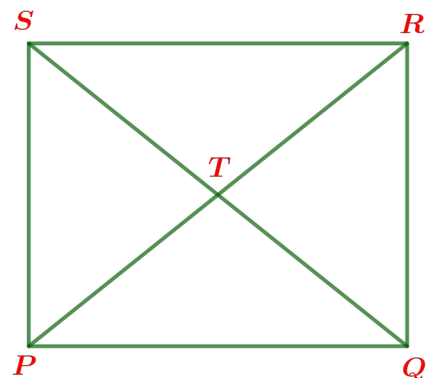
e) $\angle ADC = 50 + 50 = 100^\circ$

If a circle is drawn with AC as diameter , D is inside the circle



5. In the figure PQRS is a square . The diagonals intersect at T .

- What is the measure of $\angle PTQ$?
- Where will be the position of T , if a circle is drawn with PQ as diameter ?



c) Where will be the position of R , if a circle is drawn with PS as diameter ?

(inside the circle , on the circle , outside the circle)

Answer

a) $\angle PTQ = 90^\circ$ (Diagonals of a square perpendicular to each other)

b) If a circle is drawn with PQ as diameter , T is on the circle .

c) If a circle is drawn with PS as diameter , R is outside the circle .

