

EXERCISE 10.3

1. Draw rough diagrams to illustrate the following:

- (i) Open curve
- (ii) Closed curve

Solution:

(i) Open curve



(ii) Closed curve



2. Classify the following curves as open or closed:



(i)



(ii)



(iii)



(iv)



(v)



(vi)

Solution:

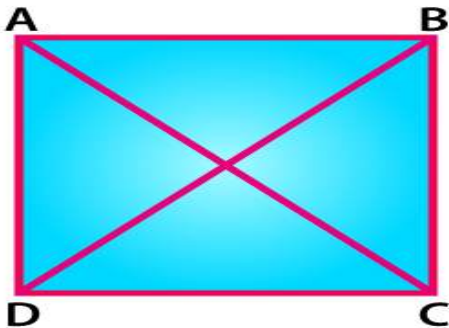
- (i) From the figure we know that it is an open curve.
- (ii) From the figure we know that it is a closed curve.

- (iii) From the figure we know that it is a closed curve.
- (iv) From the figure we know that it is an open curve.
- (v) From the figure we know that it is an open curve.
- (vi) From the figure we know that it is a closed curve.

3. Draw a polygon and shade its interior. Also draw its diagonals, if any.

Solution:

We know that ABCD is a polygon which contains two diagonals AC and BD.

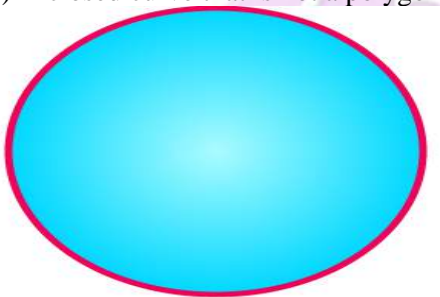


4. Illustrate, if possible, each one of the following with a rough diagram:

- (i) A closed curve that is not a polygon.
- (ii) An open curve made up entirely of line segments.
- (iii) A polygon with two sides.

Solution:

- (i) A closed curve that is not a polygon is a circle which has only a curve.



- (ii) An open curve made up entirely of line segments.



- (iii) A polygon with two sides is not possible.