

Exercise 10.3

Question: 1

Draw rough diagrams to illustrate the following:

- i) Open curve
- ii) Closed curve

Solution:

- i) Open curve:



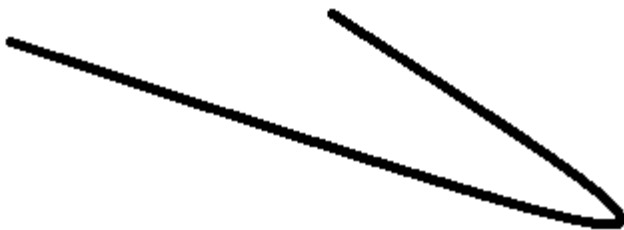
- ii) Closed curve:



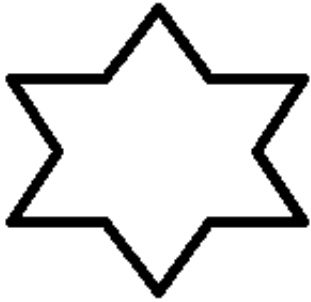
Question: 2

Classify the following curves as open or closed?

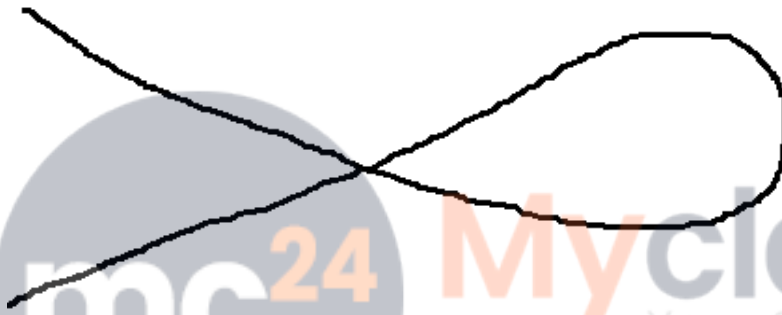
- i)



ii)



iii)



iv)



v)





vi)



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Solution:

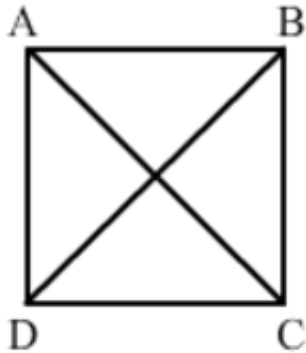
- i) Open
- ii) Closed
- iii) Closed
- iv) Open
- v) Open
- vi) Closed

Question: 3

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

Solution:

ABCD is a polygon and AC and BD are its two diagonals.



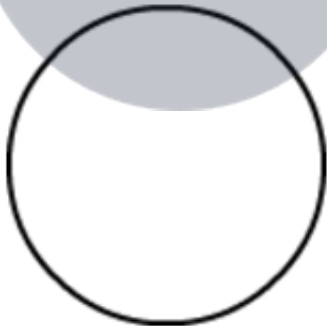
Question: 4

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

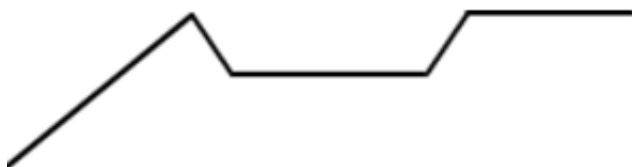
- i) A closed curve that is not a polygon
- ii) An open curve made up entirely of line segments
- iii) A polygon with two sides

Solution:

i) A circle is a simple closed curve but not a polygon. A polygon has line segments, but a circle has only curve



ii) Rough diagram of an open curve made up entirely of line segments



iii) A polygon with two sides is not possible.