

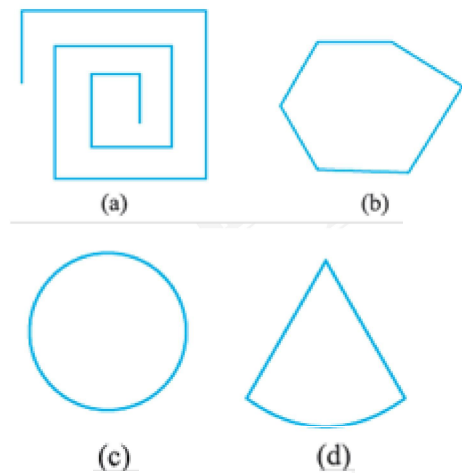
CHAPTER – 5

Understanding Elementary Shapes

EXERCISE – 5.8

Q.1

Examine whether the following are polygons. If anyone among them is not, say why?



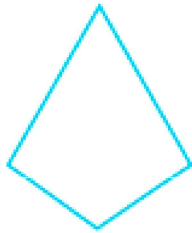
Answer:

- (a) No, it is not a polygon as it's not a closed figure.
- (b) Yes, it is a polygon as it is made of 6 line segments.
- (c) No, it is not a polygon. It's a circle and it is not made of any line segments.

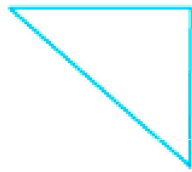
(d) No, it's not a polygon as it is not only made of line segments.

Q. 2

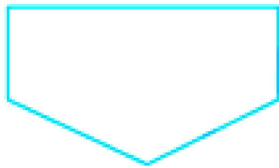
Name each polygon:



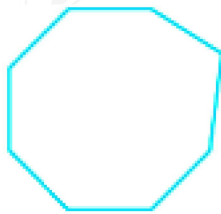
(a)



(b)



(c)



(d)

Make two more examples of each of these.

Answer:

(a) As the given figure is made of 4 line segments it is a quadrilateral.

(b) The given figure is a triangle as we can see it is made of 3 line segments.

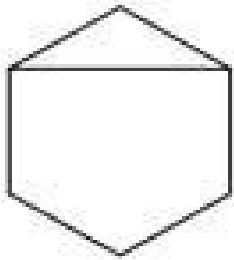
(c) The given figure is a pentagon as it is made of 5 line segments.

(d) The given figure is of octagon as it is made of 8 line segments.

Q. 3

Draw a rough sketch of a regular hexagon. Connecting any three of its vertices, draw a triangle. Identify the type of the triangle you have drawn.

Answer:



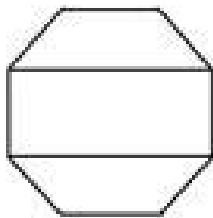
An isosceles triangle by joining three of the vertices of a hexagon will look like the figure above.

Q. 4

Draw a rough sketch of a regular octagon. (Use squared paper if you wish). Draw a rectangle by joining exactly four of the vertices of the octagon.

Answer:

An octagon has eight sides.

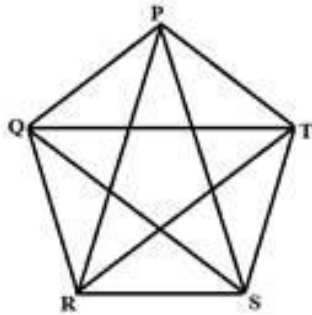


If we join any two opposite sides, then we get a rectangle as shown in the above figure.

Q. 5

A diagonal is a line segment that joins any two vertices of the polygon and is not a side of the polygon. Draw a rough sketch of a pentagon and draw its diagonals.

Answer:



It can be seen in the figure that PR, PS, QT, QS and RT are the diagonals.