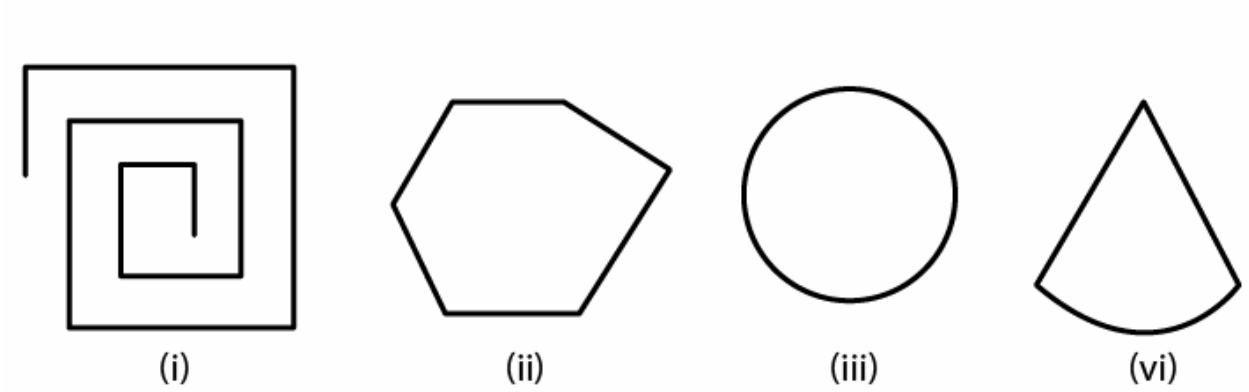
Access NCERT Solutions for Class 6 Chapter 5: Understanding Elementary Shapes Exercise 5.8

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



Solutions:

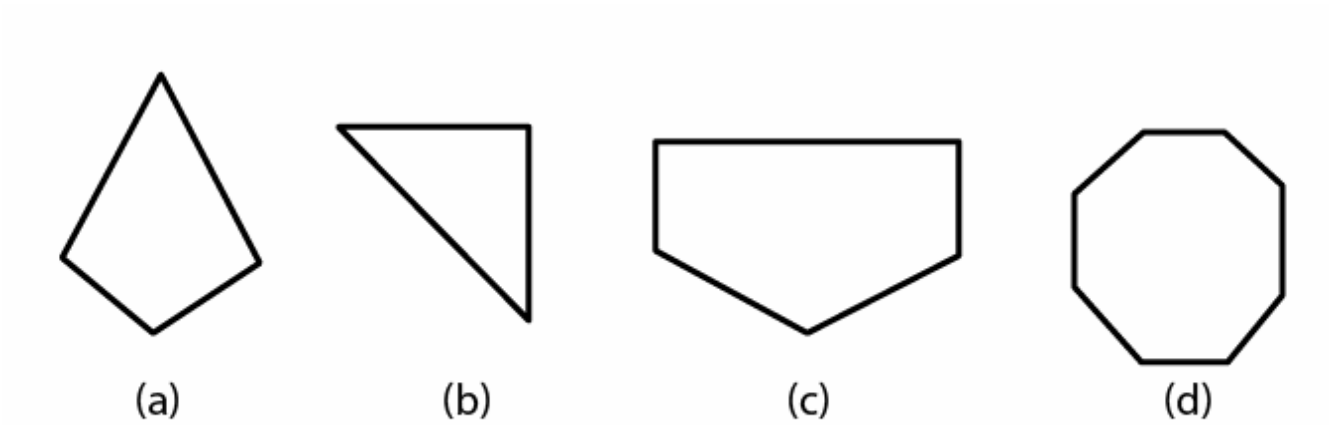
(i) It is not a closed figure. Hence, it is not a polygon.

(ii) It is a polygon made of six sides

(iii) No it is not a polygon because it is not made of line segments.

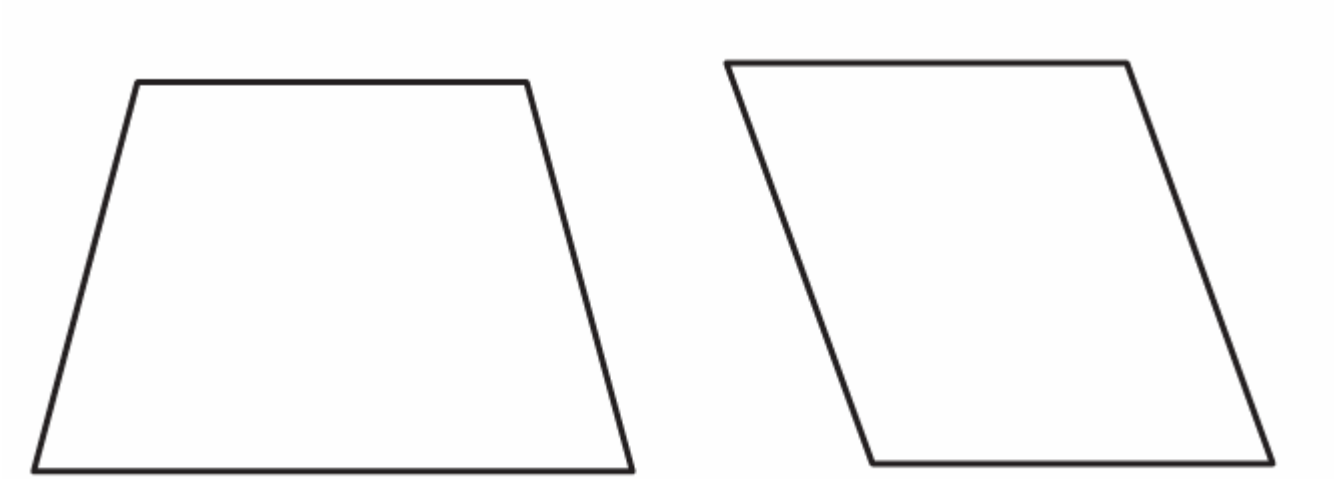
(iv) It is not a polygon as it is not made of line segments.

2. Name each polygon.

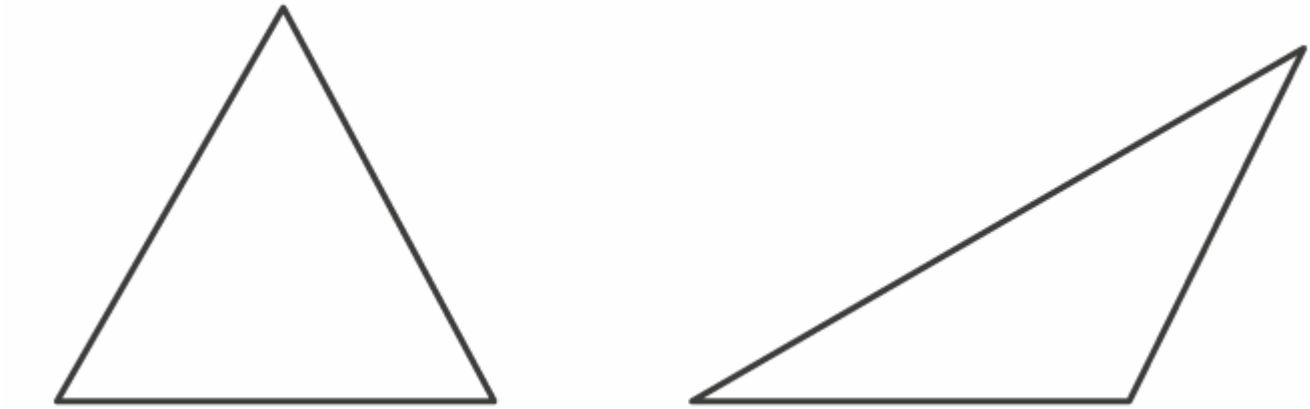


Make two more examples of each of these.

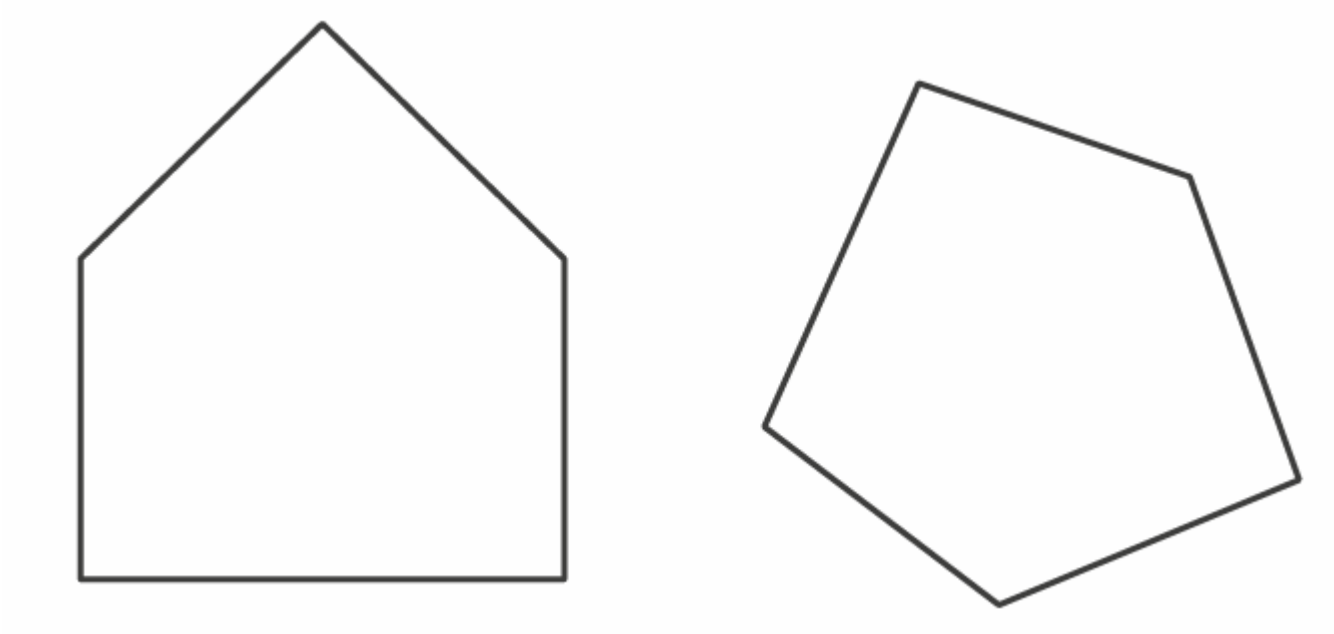
(a) It is a closed figure and is made of four line segments. Hence, the given figure is a quadrilateral. Two more examples are



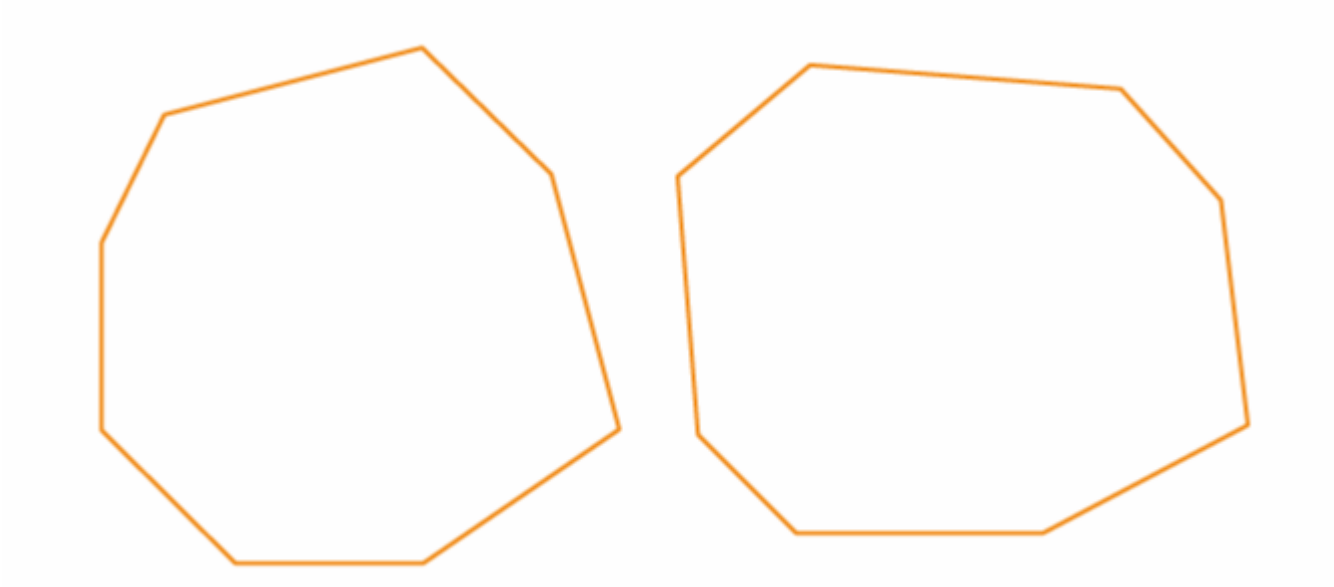
(b) The given figure is a triangle as it is a closed figure with 3 line segments. Two more examples are



(c) The given figure is a pentagon as this closed figure made of 5 line segments. Two more examples are



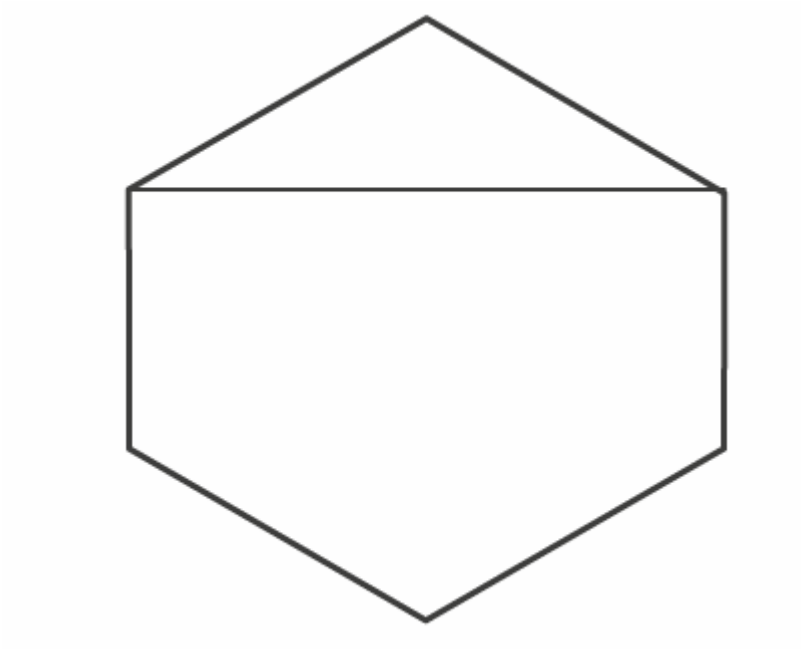
(d) The given figure is an octagon as it is a closed figure made of 8 line segments.
Two more examples are



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.

Solutions:

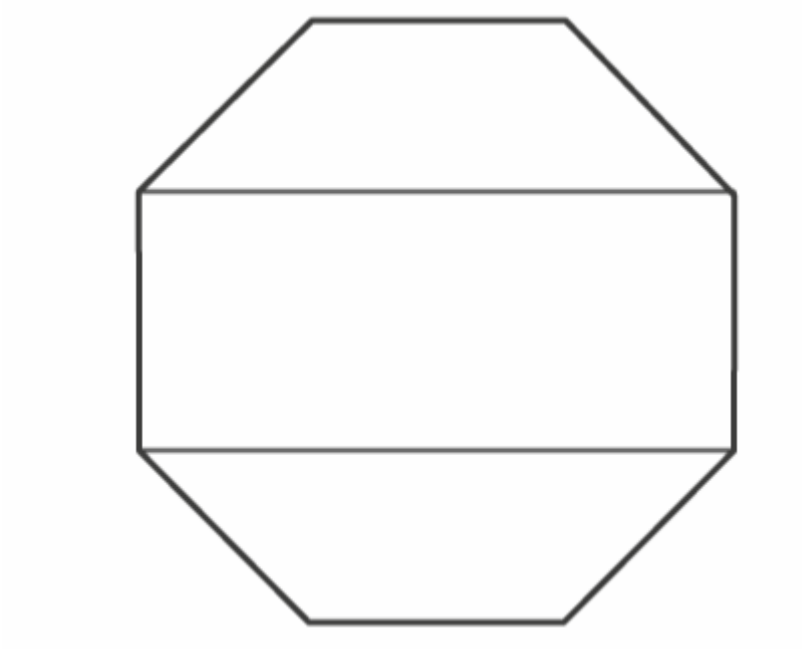
We can draw an isosceles triangle by joining three of vertices of a hexagon as shown in below figure



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.

Solution:

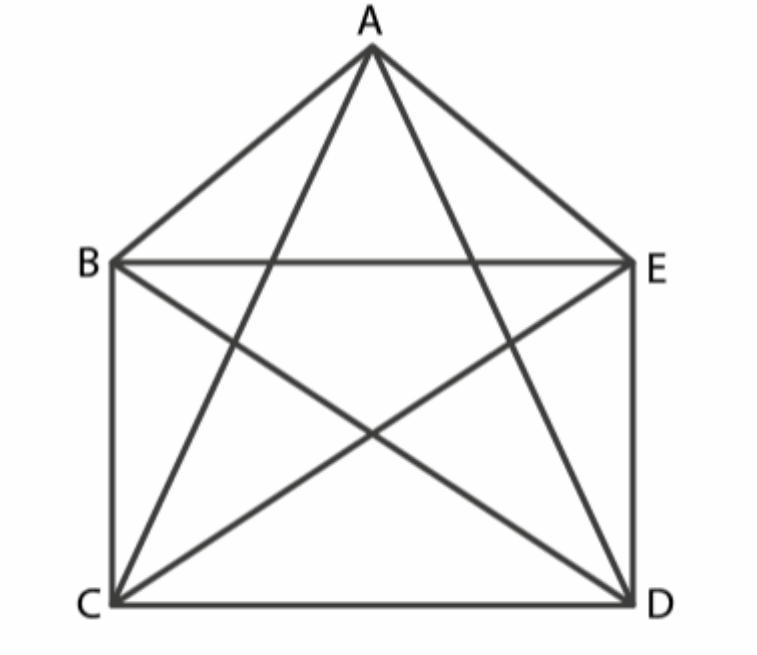
The below figure is a regular octagon in which a rectangle is drawn by joining four of the vertices of the octagon.



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.

Solutions:

From the figure we may find AC, AD, BD, BE and CE are the diagonals


A
B
E
C
D