

## Polygons

Q1

**Answer :**

- (a) It is a simple closed figure because it does not intersect itself.
- (b) It is a simple closed figure because it does not intersect itself.
- (c) It is not a simple closed figure because it intersects itself.
- (d) It is a simple closed figure because it does not intersect itself.
- (e) It is not a simple closed figure because it intersects itself.
- (f) It is a simple closed figure because it does not intersect itself.

Q2

**Answer :**

- (a) It is formed by four line segments and we know that a simple closed figure formed by three or more line segments is called a polygon. So, it is a polygon named quadrilateral.
- (b) It is formed by three line segments and we know that a simple closed figure formed by three or more line segments is called a polygon. So, it is polygon named triangle.
- (c) It is formed by twelve line segments and we know that a simple closed figure formed by three or more line segments is called a polygon. So, it is polygon.
- (d) It is not a polygon because it contains curves.

Q3

**Answer :**

- (i) A polygon is a simple closed figure formed by more than two line segments.
- (ii) A polygon formed by three line segments is called a triangle.
- (iii) A polygon formed by four line segments is called a quadrilateral.
- (iv) A triangle has three sides and three angles.
- (v) A quadrilateral has four sides and four angles.
- (vi) A figure which ends at the starting point is called a closed figure.