



Triangles Ex 12.1 Q7

Answer :

- (i) Triangle - a triangle is a closed polygon that consists of three straight lines as its sides.
- (ii) Parts or elements of a triangle - a triangle consists of three sides, three angles and three vertices.
- (iii) Scalene triangle - a triangle, in which the length of all the sides are different.
- (iv) Isosceles triangle - a triangle, in which the length of two sides are equal.
- (v) Equilateral triangle - a triangle, in which the length of all the sides are equal.
- (vi) Acute triangle - a triangle, in which all the angles measure less than 90° .
- (vii) Right triangle - a triangle, which has an angle that measures 90° .
- (viii) Obtuse triangle - a triangle, in which one of the angles measure more than 90° .
- (ix) Interior of a triangle - the region lying inside the boundaries or sides of a triangle.
- (x) Exterior of a triangle - the region lying outside the boundaries or sides of a triangle.

Triangles Ex 12.1 Q8

Answer :

- (i) This is a scalene triangle, as all the sides have different length.
- (ii) This is an isosceles triangle, as two sides are equal in length i.e. 5.6 cm.
- (iii) This is an equilateral triangle, as all the sides are equal in length i.e. 5 cm.
- (iv) This is a scalene triangle, as all the sides have different length.
- (v) This is an isosceles triangle, as two sides are equal in length i.e. 6.2 cm.

Triangles Ex 12.1 Q9

Answer :

- (i) This is a right angled triangle, as it contains a 90° angle.
- (ii) This is an obtuse angled triangle, as one of the angle (120°) measures more than 90° and less than 180° .
- (iii) This is an acute angled triangle, as all the angles are less than 90° .
- (iv) This is a right angled triangle, as it contains a 90° angle.
- (v) This is an obtuse angled triangle, as one of the angle (110°) measures more than 90° and less than 180° .

Triangles Ex 12.1 Q10

Answer :

- (i) A triangle has three sides.
- (ii) A triangle has three vertices.
- (iii) A triangle has three angles.
- (iv) A triangle has six parts.
- (Angles and sides are part of a triangle. So, three angles and three sides make six parts).
- (v) A triangle whose no two sides are equal is known as Scalene triangle.
(A triangle whose length of all sides are different is called Scalene triangle).
- (vi) A triangle whose two sides are equal is known as Isosceles triangle.
(A triangle whose length of two sides are equal is called an Isosceles triangle).
- (vii) A triangle whose all the sides are equal is known as Equilateral triangle.
(A triangle whose length of all sides are equal is called an Equilateral triangle).
- (viii) A triangle whose one angle is a right angle is known as Right angled triangle.
(A triangle whose one angle is 90° is called a Right angled triangle).
- (ix) A triangle whose all angles measure less than 90° is known as an Acute triangle.
(A triangle whose all angles are less than 90° is called an Acute triangle).
- (x) A triangle whose one angle is more than 90° is known as an Obtuse triangle.
(A triangle whose one angle is more than 90° is called an Obtuse triangle).

Triangles Ex 12.1 Q11

Answer :

- (i) T
- (ii) F; a triangle consists of three vertices only.
- (iii) F; three line segments joined by three non-collinear points can only form a triangle.
- (iv) F; it lies on the triangle.
- (v) T
- (vi) F; the vertices of a triangle are three non-collinear points.
- (vii) T
- (viii) F; it can also be an isosceles triangle.
- (ix) F; it can also be a scalene or an isosceles triangle.
- (x) F; it can be an obtuse triangle.

***** END *****