



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



CLASS 8

SUBJECT :Algebra and Geometry

Work sheet 8 answer key

Marks:15

TRIANGLES

Date:15.4.2020

Answer all the following questions($1 \times 15 = 15$)

1. A triangle formed by the sides of lengths 4.5 cm, 6 cm, and 4.5 cm is
- (a) scalene
 - (b) isosceles
 - (c) equilateral
 - (d) none of these

Solution:

A triangle formed by the sides of lengths 4.5 cm, 6 cm, and 4.5 cm is isosceles. (b)

2. The number of medians in a triangle is
- (a) 1
 - (b) 2
 - (c) 3
 - (d) 4

Solution:

The number of medians in a triangle is 3. (c)

3. An exterior angle of a triangle is 125° . If one of the two interior opposite angles is 55° then the other interior opposite angle is
- (a) 70°
 - (b) 55°
 - (c) 60°
 - (d) 80°

Solution:

An exterior angle of a triangle is 125° .

If one of the two interior opposite angles is 55°

then the other interior opposite angle is $125^\circ - 55^\circ = 70^\circ$ (a)

4. In a $\triangle ABC$, if $\angle A = 40^\circ$ and $\angle B = 55^\circ$ then $\angle C$ is
- (a) 75°
 - (b) 80°
 - (c) 95°
 - (d) 85°

Solution:

In a $\triangle ABC$, if $\angle A = 40^\circ$ and $\angle B = 55^\circ$

then $\angle C$ is $180^\circ - (40^\circ + 55^\circ) = 180^\circ - 95^\circ = 85^\circ$ (d)

5. If the angles of a triangle are 35° , 35° , and 110° , then it is
- (a) an isosceles triangle
 - (b) an equilateral triangle
 - (c) a scalene triangle
 - (d) right-angled triangle

Solution:

If the angles of a triangle are 35° , 35° , and 110° ,

then it is an isosceles triangle. (a)

6. A triangle whose two angles measure 30° and 120° is
- (a) scale
 - (b) isosceles
 - (c) equilateral
 - (d) none of these

Solution:

A triangle whose two angles measure 30° and 120° is an isosceles triangle. (b)

7. A triangle can have two

- (a) right angles
- (b) obtuse angles
- (c) acute angles
- (d) straight angles

Solution:

A triangle can have two acute angles. (c)

8. A triangle is not possible whose angles measure

- (a) 40° , 65° , 75°
- (b) 50° , 56° , 74°
- (c) 72° , 63° , 45°
- (d) 67° , 42° , 81°

Solution:

A triangle is not possible whose angles measure 67° , 42° , 81° . (d)
(Sum is more than 180°)

9. If in an isosceles triangle, each of the base angles is 40° , then the triangle is

- (a) right-angled triangle
- (b) acute-angled triangle
- (c) obtuse-angled triangle
- (d) isosceles right-angled triangle

Solution:

If in an isosceles triangle, each of the base angles is 40° , then the triangle is an obtuse angled triangle. (c)

10. A triangle cannot have more than right angle.

- (a) 1
- (b) 2
- (c) 3
- (d) 4

Solution: a) 1

11. A triangle cannot have more than obtuse angle.

- (a) 2

- (b)1
- (c) 3
- (d)4

Solution: b) 1

12. In every triangle, the sum of (interior) angles of a triangle = right angles.

- (a) 3
- (b) 2
- (c)1
- (d) 5

Solution: b) 2

13. In every triangle, an exterior angle + adjacent interior angle = degrees.

- (a) 90
- (b) 180
- (c)60
- (d) 360

Solution: b) 180

14. In every triangle, an exterior angle = sum of the interior opposite angles.

- (a) 3
- (b) 1
- (c)2
- (d) none of these

Solution: c) 2

15. In a right-angled triangle, if one of the acute angles measures 25° then the measure of the other acute angle is

- (a) 65°
- (b) 55°
- (c) 75°
- (d) 85°

Solution: a) 65° , $x+25+90=180$

Indranil Ghosh