



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Sub: Algebra Geometry

Class: 7

Date: 11. 05.20

Duration: 40 min

Worksheet Solutions -19

Full Marks: 15

## CONSTRUCTION OF TRIANGLES

Choose the Correct options:

- The medians of a triangle cut each other in the ratio of
  - 4 : 7
  - 3 : 1
  - 2 : 1
  - 1 : 1**
- The sum of 3 angles of triangle is
  - 180 °**
  - 360 °
  - 90 °
  - 270 °
- Which of the following angle can be constructed with the help of a ruler and a pair of compasses?
  - 35°
  - 40°
  - 37.5°**
  - 47.5°
- Which of the following can be the length of BC required to construct the triangle ABC such that AC = 7.4 cm and AB = 5 cm?
  - 3.5 cm
  - 2.1 cm**
  - 4.7 cm
  - 5 cm
- The construction of a triangle  $\Delta ABC$  in which BC = 6 cm,  $\angle A = 50^\circ$  is not possible, when difference of BC and AC is equal to
  - 4.6 cm
  - 6.4 cm**
  - 5.1 cm
  - 5 cm
- The construction of the triangle ABC is possible if it is given that BC = 4 cm,  $\angle C = 60^\circ$  and the difference of AB and AC is
  - 3.5 cm
  - 4.5 cm**
  - 3 cm
  - 2.5 cm
- Which of the following set of lengths can be the sides of a triangle?
  - 2 cm, 4 cm, 1.9 cm
  - 5.5 cm, 6.5 cm, 8.9 cm**
  - 1.6 cm, 3.7 cm, 5.3 cm
  - 11 cm, 5 cm, 6 cm
- Which of the following sets of angles can be the angles of a triangle?
  - 30°, 60°, 80°
  - 40°, 60°, 70°
  - 50°, 30°, 100°**
  - 90°, 60°, 40°

9. If the construction of a triangle ABC in which  $AB = 6$  cm,  $\angle A = 70^\circ$  and  $\angle B = 40^\circ$  is possible then find the measure of  $\angle C$ .
- $40^\circ$
  - $70^\circ$**
  - $80^\circ$
  - $90^\circ$
10. With the help of a ruler and compasses, which of the following is not possible to construct?
- $70^\circ$**
  - $60^\circ$
  - $135^\circ$
  - $105^\circ$
11. With the help of a ruler and compasses which of the following is not possible to construct?
- $120^\circ$
  - $135^\circ$
  - $140^\circ$**
  - $165^\circ$
12. If a, b and c are the lengths of the three sides of a triangle, then which of the following is true?
- $a + b < c$
  - $a - b < c$**
  - $a + b = c$
  - $a - b > c$
13. The construction of a triangle ABC given that  $BC = 3$  cm, angle  $C = 60^\circ$  is possible when the difference of AB and AC is equal to
- 3.2 cm
  - 3.1 cm
  - 3 cm
  - 2 cm**
14. The construction of a triangle ABC given that  $BC = 6$  cm, angle  $C = 45^\circ$  is not possible when the difference of AB and AC is equal to
- 6.9 cm**
  - 5.2 cm
  - 5 cm
  - 4 cm
15. Construction of a triangle is not possible is
- $AB - AC < AC$
  - $AB - BC = AC$
  - $AB - BC > AC$**
  - Both a and b