Sub: Algebra Geometry   **Class: 7**   **Date: 11. 05.20**

Duration: 40 min   **Worksheet -19**   **Full Marks: 15**

CONSTRUCTION OF TRIANGLES

Choose the Correct options:

1. The medians of a triangle cut each other in the ration of
   a) 4 : 7
   b) 3 : 1
   c) 2 : 1
   d) 1 : 1

2. The sum of 3 angles of triangle is
   a) 180 °
   b) 360 °
   c) 90 °
   d) 270 °

3. Which of the following angle can be constructed with the help of a ruler and a pair of compasses?
   a) 35°
   b) 40°
   c) 37.5°
   d) 47.5°

4. 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?
   a) 3.5 cm
   b) 2.1 cm
   c) 4.7 cm
   d) 5 cm

5. The construction of a triangle ΔABC in which BC = 6 cm, ∠A = 50° is not possible, when difference of BC and AC is equal to
   a)   4.6 cm
   b)   6.4 cm
   c)   5.1 cm
   d)   5 cm

6. The construction of the triangle ABC is possible if it is given that BC = 4 cm, ∠C = 60° and the difference of AB and AC is
   a)   3.5 cm
   b)   4.5 cm
   c)   3 cm
   d)   2.5 cm

7. Which of the following set of lengths can be the sides of a triangle?
   a) 2 cm, 4 cm, 1.9 cm
   b) 5.5 cm, 6.5 cm, 8.9 cm
   c) 1.6 cm, 3.7 cm. 5.3 cm
   d) 11 cm, 5 cm, 6 cm

8. Which of the following sets of angles can be the angles of a triangle?
   a) 30°, 60°, 80°
   b) 40°, 60°, 70°
   c) 50°, 30°, 100°
   d) 90°, 60° 40°

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9. If the construction of a triangle ABC in which AB = 6 cm, ∠A = 70° and ∠B = 40° is possible then find the measure of ∠C.
   a) 40°
   b) 70°
   c) 80°
   d) 90°

10. With the help of a ruler and compasses, which of the following is not possible to construct?
   a) 70°
   b) 60°
   c) 135°
   d) 105°

11. With the help of a ruler and compasses which of the following is not possible to construct?
   a) 120°
   b) 135°
   c) 140°
   d) 165°

12. If a, b and c are the lengths of the three sides of a triangle, then which of the following is true?
   a) $a + b < c$
   b) $a - b < c$
   c) $a + b = c$
   d) a-b>c

13. The construction of a triangle ABC given that BC = 3 cm, angle C = 60° is possible when the difference of AB and AC is equal to
   a) 3.2 cm
   b) 3.1 cm
   c) 3 cm
   d) 2 cm

14. The construction of a triangle ABC given that BC = 6 cm, angle C = 45° is not possible when the difference of AB and AC is equal to
   a) 6.9 cm
   b) 5.2 cm
   c) 5 cm
   d) 4 cm

15. Construction of a triangle is not possible is
   a) AB-AC<AC
   b) AB-BC=AC
   c) AB-BC>AC
   d) Both a and b