ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

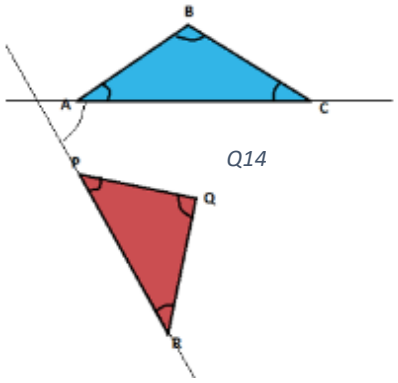
Sub: Algebra and Geometry **Class: 7** **Date: 29.04.20**

Duration: 40 min **Worksheet Solution 15** **Full Marks: 15**

TRIANGLES CONSTRUCTION

Choose the Correct options:

1. Which of the following angle can be constructed with the help of a ruler and a pair of compasses?
   (i) 35°(ii) 40°(iii) **37.5°(**iv) 47.5°
2. 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?
   (i) 3.5 cm(ii) **2.1 cm**(iii) 4.7 cm (iv) 4.5 cm
3. 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
   (i) 4.6 cm(ii) **6.4 cm**(iii) 5.1 cm (iv) 5.2 cm
4. 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
   (i) 3.5 cm(ii) **4.5 cm**(iii) 3 cm(iv) 2.5 cm
5. Which of the following set of lengths can be the sides of a triangle?
   (i) 2 cm, 4 cm, 1.9 cm(ii) **5.5 cm, 6.5 cm, 8.9 cm**(iii) 1.6 cm, 3.7 cm. 5.3 cm (iv) 2cm,3cm,4 cm
6. Which of the following sets of angles can be the angles of a triangle?
   (i) 30°, 60°, 80°(ii) 40°, 60°, 70°(iii) **50°, 30°, 100°** (iv) 30°, 60°,70°
7. 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.
   (i) 40°(ii) **70°**(iii) 80° (iv) 90°
8. With the help of a ruler and compasses, which of the following is not possible to construct?
   (i) **70°**(ii) 60°(iii) 135° (iv) 120°
9. With the help of a ruler and compasses which of the following is not possible to construct?
   (i) 120°(ii) 135°(iii) **140°** (iv) 75°
10. If a, b and c are the lengths of the three sides of a triangle, then which of the following is true?
    (i) a + b < c(ii) **a – b < c**(iii) a + b = c (iv) a-b >c
11. What must you be given to construct an equilateral triangle?
    (i) **the length of one side** (ii) the length of two sides (iii) One angle (iv) the length of two sides and an angle
12. When constructing triangles, what tool do we use to measure the length of a side?
    (i) Compass (ii) **Ruler** (iii) Any straight edge (iv) Protractor
13. What pictured shape do we draw to identify the measured length of a triangle's side?
    (i) **Arc** (ii) Ray (iii) Angle (iv) Side
14. If you need to construct a triangle with point P as one of its vertices, which is the angle that you need to construct a side of the triangle?
    (i) ∠QPR (ii) ∠RQP (iii) ∠PRQ (iv) **Angle PR makes with AC**
15 The construction of ΔABC, given that BC = 6 cm, ∠B = 45° is not possible when difference of AB and AC is equal to
(i) 6.9 cm (ii) 5.2 cm (iii) 5.0 cm (iv) 4.0 cm



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