# EXERCISE

**Which of the following measures of sides and angles form a triangle. If not, then why ? Construct the possible triangles. (Q. No. 1 to 8)**

**Q.1** $\angle A = 60°$, $\angle B = 60°$ and AC = 5.4 cm.

**Q.2** $\angle P = 70°$, $\angle Q = 115°$ and PQ = 4.7 cm.

**Q.3** $\angle X = 60°$, $\angle Y = 70°$, XY = 5.8 cm.

**Q.4** AB = 4 cm, BC = 4.8 cm and AC = 10 cm.

**Q.5** YZ = 4.9 cm, XZ = 5.4 cm and XY = 6.2 cm.

**Q.6** AB = 4 cm, BC = 5 cm, AC = 11 cm.

**Q.7** $\angle B = 80°$, $\angle C = 105°$ and BC = 6 cm.

**Q.8** BC = 5 cm, $\angle B = 70°$ and AC = 5.5 cm.

**Q.9** Draw a triangle PQR, where QR = 7 cm, PR = 5 cm and $\angle R = 100°$ (using ruler and protractor).

**Q.10** Draw a triangle XYZ, where XY = 4 cm, YZ = 4 cm and $\angle X = 60°$ (using ruler and compasses). What type of triangle is this ?

**Q.11** Draw a triangle ABC in which $\angle A = 50°$, $\angle B = 40°$ and AB = 5 cm (using ruler and protractor).

**Q.12** Draw a triangle PQR in which $\angle P = 60°$, $\angle Q = 30°$ and PQ = 6 cm (using ruler and compasses).

**Q.13** Construct a triangle ABC, where $\angle B = 100°$, $\angle C = 40°$ and BC = 5 cm (using ruler and protractor).

**Q.14** Construct a triangle PQR in which $\angle P = 45°$, $\angle Q = 30°$ and PQ = 5.7 cm (using a ruler and a pair of compasses).

**Q.15** Draw a $\Delta ABC$, where, $\angle A = 75°$, $\angle B = 50°$ and AB = 5.7 cm (using ruler and protractor).

**Q.16** The hypotenuse of a right triangle is 13 cm long. If one of the remaining two sides is of length 5 cm, measure the length of another side.

**Q.17** Construct an isosceles right triangle PQR, where $\angle Q = 90°$, PQ = QR = 4.8 cm.

**Q.18** Draw a right $\Delta PQR$, where $\angle Q = 90°$, QR = 3 cm and PR = 5 cm.

**Q.19** Construct a right triangle ABC, where $\angle B = 90°$, AB = 6 cm and BC = 5.4 cm. Measure the length of AC.