



## MATHEMATICS OF CLASS IX CHAPTER – 11 CONSTRUCTIONS

**Q.1.** Construct an angle of  $90^\circ$  at the initial point of a given ray and justify the construction

**Q.2.** Construct an angle of  $45^\circ$  at the initial point of a given ray and justify the construction.

**Q.3.** Construct the angles of the following measurements:

(i)  $30^\circ$  (ii)  $22\frac{1}{2}^\circ$  (iii)  $15^\circ$

**Q.4.** Construct the following angles and verify by measuring them by a protractor:

(i)  $75^\circ$  (ii)  $105^\circ$  (iii)  $135^\circ$

**Q.5.** Construct an equilateral triangle, given its side and justify the construction

**Q.6.** Construct a triangle ABC in which  $BC = 7$  cm,  $\angle B = 75^\circ$  and  $AB + AC = 13$  cm.

**Q.7.** Construct a triangle ABC in which  $BC = 8$  cm,  $\angle B = 45^\circ$  and  $AB - AC = 3.5$  cm.

**Q.8.** Construct a triangle PQR in which  $QR = 6$  cm,  $\angle Q = 60^\circ$  and  $PR - PQ = 2$  cm

**Q.9.** Construct a triangle XYZ in which  $\angle Y = 30^\circ$ ,  $\angle Z = 90^\circ$  and  $XY + YZ + ZX = 11$  cm.

**Q.10.** Construct a right triangle whose base is 12 cm and sum of its hypotenuse and other side is 18 cm.