BankExamCafe

Tutorial : Construction

___

1. Draw a line segment of length 8 cm. and divide it in the ratio 3:2. Measure the two parts.
2. Construct a triangle of sides 5 cm, 6 cm and 7 cm and then a triangle similar to it whose sides are ¾ of the corresponding sides of it.
3. Draw a line segment AB of length 7 cm. Taking A as centre, draw a circle of radius 3 cm and taking B is centre, draw another circle of radius 2 cm. construct tangents to each circle from the centre of the other circle.
4. Draw a right triangle in which sides (other than hypotenuse) are of lengths 8 cm and 6 cm. then construct another triangle whose sides are ¾ times the corresponding sides of the first triangle.
5. Construct a triangle ABC in which BC = 8 cm, angle B = 45 and angle C = 30. Construct another triangle similar to triangle ABC such that its sides are ¾ of the corresponding sides of triangle ABC.
6. Construct a triangle ABC in which AB = 6.5 cm, angle B = 60 and BC = 5.5 cm. Also construct a triangle AB'C' similar to Triangle ABC whose each side is 3/2 times the corresponding side of the triangle ABC.
7. Draw an isosceles triangle ABC in which AB = AC = 6 cm and BC = 5 cm. construct a triangle PQR similar to triangle ABC in which PQ = 8 cm.
8. Draw a triangle ABC with BC = 7cm, angle B = 45 and angle C = 60. Then construct another triangle, whose sides are 3/5 times the corresponding sides of triangle ABC.
9. Draw a triangle ABC with side BC = 7cm, angle B = 45 and angle A = 105. Then, construct a triangle whose sides are 4/3 times the corresponding sides of triangle ABC.
10. Draw a circle of diameter 8 cm. From a point P, 8 cm away from its centre, construct a pair of tangent to the circle. Measure the lengths of the tangent segments.
11. Draw a circle of radius 3 cm. From a point P, 6 cm away from its centre, construct a pair of tangents to the circle. Measure the lengths of the tangents.
12. Draw two concentric circles of radii 3 cm and 5 cm. Taking a point on the outer circle construct the pair of tangents to the other. Measure the length of a tangent and verify it by actual calculation.
13. Draw a circle of diameter 8 cm. From a point P, 7 cm away from its centre, construct a pair of tangent to the circle. Measure the length of the tangent.

___