QB 365

Important Questions - Constructions

10th Standard CBSE

Maths Reg.No. : | | | | | | |

Time : 01:00:00 Hrs

Total Marks : 50

Section - A

1) The tangent line is ..... to the radius through the point of contact. **1**

2) The difference of any two sides of a triangle is always ..... than the third side. **1**

3) To construct a triangle similar to a given triangle as per given scale factor which may be ..... than or may be ..... than 1. **1**

4) In order to divide a line segment internally in the ratio m : n, both m and n are **1**

5) To divide a line segment AB in the ratio 5 : 7, first AX is drawn, so that LBAX is an acute angle and then at equal distance, points are marked on the ray AX, find the minimum number of these points. **1**

6) To di de a line segment AB in the ratio 2 : 5, a ray .AX is drawn such that $\angle BAX$ is acute. Then points are marked at equal intervals at AX. What is the minimum number of these points? **1**

7) To find a point P on the line segment AB = 6 cm, such than $\frac{AP}{AB} = \frac{2}{5}$ which ratio the line segment AB is divided. **1**

8) In drawing a triangle, if AB = 3 cm, BC = 2 em and AC = 6 cm. What is the possibility that a triangle cannot be drawn. **1**

9) In figure, $\angle ADE$ is constructed similar to $\triangle ABC$, write down the scale factor **1**

10) Give three sides such that construction of a triangle is possible. **1**

Section - B

11) Construct an isosceles triangle whose base is 8 cm and altitude 4 cm and then another triangle whose sides are $1\frac{1}{2}$ times the corresponding sides of the isosceles triangle **2**

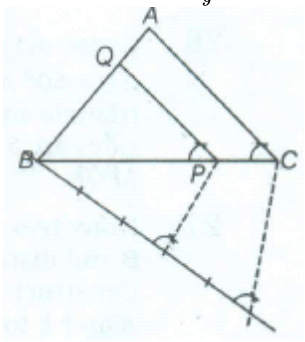
12) Construct a triangle ABC in which $AB = 5\ cm, BC = 6\ cm$ and $AC = 7cm$. Construct another triangle similar to $\triangle ABC$ such that its sides are $\frac{3}{5}$ of the corresponding sides of $\triangle ABC$. **2**

13) Draw a circle of radius 3 cm. Take two points A and B on one of its extended diameter each at a distance of 6 cm from its centre. Draw tangents to the circle from these two points A and B. **2**

14) Construct a triangle whose perimeter is 13.5 cm and the ratio of the three sides is 2 : 3 : 4. **2**

15) How many tangent (s) can we draw from a given point lying outside the circle? **2**

16) In the given figure, ΔBPQ is similar to ΔBCA with its sides $\frac{x}{y}$ of the corresponding sides of ΔBCA . Then, find the value of $\frac{x}{y}$ **2**



17) Let PQR be a right triangle in which PQ = 3cm, QR = 4cm and $< Q = 90^o$. QS is the perpendicular from Q on PR. The circle through Q, R, S is drawn. Construct the tangents from P to this circle. **2**

18) Draw a line segment AB of length 8 cm. Taking A as centre, draw a circle of radius 4 cm and taking B as centre, draw another circle of radius 3 cm. Construct tangents to each circle from the centre of the other circle. **2**

19) Construct a triangle similar to given, ΔABC where AB =6 cm, BC =7 cm and AC =8 cm, with its sides equal to $\frac{3}{4}$ of the corresponding sides of ΔABC Also, justify the construction **2**

20) Draw a circle of radius 5 ern, Mark a point A which is 8cm away from its centre 0, construct the tangents AB and AC Measure the lengths of AB and AC **2**

Section - C

21) Two line segments AB and AC include an angle of 60^o where AB = 5cm and AC=7cm. Locate points P and Q on AB and AC, respectively such that $AP = \frac{3}{4}$ AB and $AQ = \frac{1}{4}AC$. Join P and Q and measure the length PQ. **5**

22) Construct a ΔABC , in which BC=5cm, $\angle CAB = 120^\circ$ and $\angle ABC = 30^\circ$. Then, construct another triangle whose sides are $\frac{4}{5}$ times of the corresponding sides of ΔABC . Justify your construction. **5**

23) To a circle of radius 4 ern, draw two tangents which are inclined to each other at an angle of 60°. **5**

24) Construct a triangle ABC with BC = 7 cm, B = 60° and AB = 6 cm. Construct another triangle whose sides are 3/4 times the corresponding sides p.ABC **5**

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