

Worksheet

- State whether true or false.
 - PQ is the perpendicular bisector of AB. So, $\triangle PAB$ is an isosceles triangle.
 - The bisector of a right angle divides it into two equal angles. Each measuring 30 degrees.
 - The circumcircle of a triangle runs inside the triangle.
- Choose the correct answer.
 - For constructing an angle using the compasses, it must be a multiple of _____ degrees.
 - 20
 - 30
 - 25
 - 15
 - The perpendicular bisector of a line segment measuring 12 cm divides it into two parts each measuring _____ cm.
 - 5.5
 - 6.5
 - 5
 - 6
 - If lines CD and AB are parallel to each other, then
 - they will meet at one point.
 - they will never meet.
 - they are at right angles to each other.
 - $AB = CD$
- Construct a triangle whose sides measure 5 cm, 6 cm and 7 cm. Measure the angles of the triangle.
- Draw the perpendicular bisector CD of line segment AB measuring 8 cm. Write the steps of construction.
- Construct a triangle whose two sides are of length 4 cm and 5 cm, and the included angle is 30° . Write the steps of construction.
- Construct a right-angled triangle whose sides including the right angle measure 6 cm and 8 cm, respectively. Write the steps of construction and measure the length of the hypotenuse.
- Construct a triangle PQR whose sides measure 3.5 cm, 4.5 cm and 6.8 cm. What type of triangle is it?
- Draw a triangle whose two angles measure 30° and 60° , and the included side measures 5.8 cm.
- Draw an angle measuring 105° using compasses and ruler. Bisect this angle.
- Draw a line segment of length 5.9 cm, and bisect it. Take a point on the bisector. Measure its distance from the end points of the line segment. What do you conclude?
- Construct a line segment whose length is equal to the sum of lengths of the given line segments AB and CD. Write the steps.

A _____ B

C _____ D

12. Construct a perpendicular to a line segment measuring 3.4 cm from its mid-point.
13. Construct two line segments AB and CD of lengths 6.2 cm and 3.9 cm. Construct a line segment of length equal to the difference of AB and CD.
14. Draw a line segment AB = 5.9 cm. From a point M on the line segment, construct $\angle QMB = 150^\circ$. What is the measure of angle QMA?
15. Construct a triangle POT such that $\angle P = 150^\circ$, $\angle O = 15^\circ$ and PO = 4.8 cm.
16. Construct a triangle GOD where GO = GD = 3.8 cm and $\angle O = 60^\circ$. What type of triangle is it?
17. Draw a line segment measuring MS = 4.6 cm. Construct a line segment whose length is equal to 2 MS.
18. Construct a triangle ABN such that $\angle A = 90^\circ$, $\angle B = 45^\circ$ and AB = 4.4 cm. What type of triangle is it? Measure the lengths of the other sides and also the third angle.
19. Draw a triangle MSD with sides 3 cm, 2.4 cm and 6 cm. Bisect all the angles of this triangle. Find the point of intersection. Also, construct the perpendicular bisectors of the triangle and find their point of intersection.

Answers to Worksheet

1. a. True b. False c. False
2. a. iv b. iv c. ii