



IITJEE Foundation Practice paper

CONSTRUCTIONS

class-9-Mathematics Number of Questions: 20

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1

With the help of a ruler and a compass it is not possible to construct an angle of

- 40° 37.5° 22.5° 67.5°

2

The construction of triangle ABC, given that $BC = 7$ cm, $\angle B = 45^\circ$ is not possible when difference of AB and AC is equal to

- 6.2 cm 6.0 cm 5.0 cm 7.9 cm

3

The construction of a triangle ABC, given that $BC = 4$ cm, $\angle C = 60^\circ$ is possible when the difference of AB and AC is equal to

- 4.3 cm 4 cm 3.7 cm 4.4 cm

4

The construction of a $\triangle ABC$ in which $AB = 6$ cm, $\angle A = 45^\circ$ is possible when $(BC + AC)$ is

- 5.6 cm 7.2 cm 5.4 cm 4.8 cm

5

The construction of $\triangle DEF$ in which $EF = 6.7$ cm and $\angle E = 60^\circ$ is not possible when $(DE + FD)$ is

- 6 cm 8 cm 7.2 cm 7 cm

6

The sum of any two sides of a triangle is always ____ the third side.

- less than greater than equal to can't be determined

7

The difference of any two sides of a triangle is always _____ the third side.

- less than greater than equal to can't be determined

8

The sum of all the angles of a triangle is _____

- 180° 360° 90° 270°

9

In a right-angled triangle, the sum of two acute angles is

- less than 90° greater than 90° equal to 90° none of the above

10

In a right-angled triangle, ____ is the largest of the three sides.

- opposite side adjacent side hypotenuse can't be determined

11

Which of the following angles can be constructed using ruler and compass only?

- 25° 22.5° 42.5° 50°

12

Is it possible to construct a $\triangle ABC$ in which $\angle A = 50^\circ$, $\angle B = 60^\circ$ and $\angle C = 80^\circ$?

- Yes No

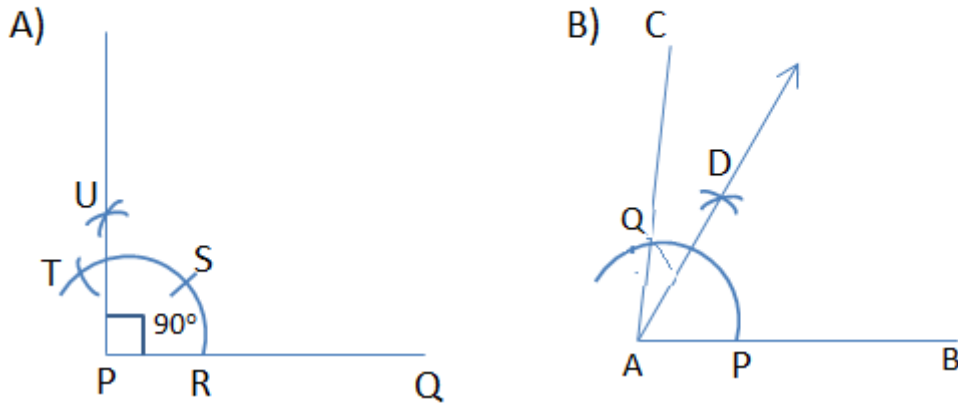
13

Is it possible to construct an angle of 67.5° using ruler and compass only?

Yes No

14

Which among the following represents an angle of 90° at the initial point of a given ray.



A only A only B only Both A and B None of the above

15

Is it possible to construct a triangle $\triangle ABC$ in which $BC = 5.6$ cm, $\angle B = 30^\circ$ and the difference between the other two sides is 3 cm.

Yes No

16

Is it possible to construct a triangle ABC in which $BC = 4.6$ cm, $\angle B = 45^\circ$ and $AB + CA = 8.2$ cm

Yes No

17

Is it possible to construct an angle $22\frac{1}{2}^\circ$ with ruler and compass only.

Yes No

18

Is it possible to construct an angle 42.5° using ruler and compass only?

Yes No

19

A triangle can be constructed when

- its base, a base angle and the sum of the other two sides is given.
- its base, a base angle and the difference of the other two sides is given.
- its perimeter and its two base angles are given. All the above

20

Is it possible to construct a triangle whose sides measure 7 cm, 5 cm and 12 cm?

- Yes No

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