

6/11/2020
FRIDAY

MATHEMATICS

STD-X
class-55

Assignment

1) A triangle is to be drawn with one side 8 cm and an angle on it 40° . What should be the minimum length of the side opposite this angle?

Ans)

In $\triangle ABC$,

$$AB = 8 \text{ cm}$$

BD is the perpendicular to AC.

In $\triangle ADB$,

$$\sin 40^\circ = \frac{DB}{AB} = \frac{DB}{8}$$

$$0.6428 = \frac{DB}{8}$$

$$\therefore DB = 0.6428 \times 8 = 5.1424$$

The side opposite to angle 40° is the smallest when BD is perpendicular to AC.

The minimum length of this side = 5.14 cm

