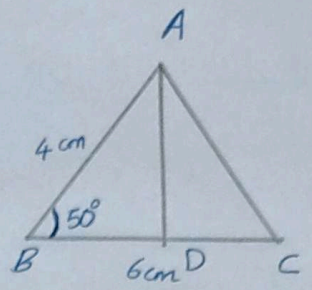
3/11/2020
TUESDAY

MATHEMATICS

STD-X
class-53

- Find the area of the triangle shown.

Ans) Draw perpendicular AD from A to BC



$\sin 50 = \frac{\text{opposite side}}{\text{hypotenuse}}$

$= \frac{AD}{AB} = \frac{AD}{4}$

$0.7660 = \frac{AD}{4}$

$\therefore AD = 0.7660 \times 4$

$= 3.064$

$\therefore$ Area of triangle $= \frac{1}{2} \times 6 \times 3.064$

$= 9.192 \text{ cm}^2$

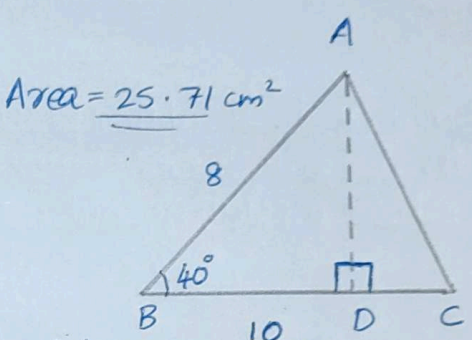
Text book page no. 109

1. Ans) In ΔBDA, $\sin 40 = \frac{AD}{BA}$

$= \frac{AD}{8}$

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

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



Area = 25.71 cm²

$\therefore$ Area $= \frac{1}{2} \times 10 \times 5.1424 = 25.71 \text{ cm}^2$

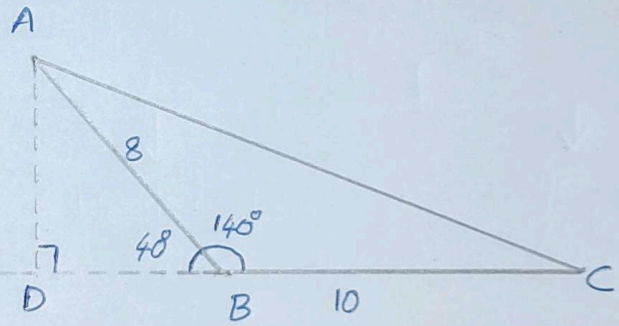
In ΔABD, $\angle ABD = 180 - 140$

$= 40°$

$\sin 40 = \frac{AD}{AB} = \frac{AD}{8}$

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

$AD = 0.6428 \times 8 = 5.1424$



$\therefore$ Area $= \frac{1}{2} \times 10 \times 5.1424$

$= 25.71 \text{ cm}^2$