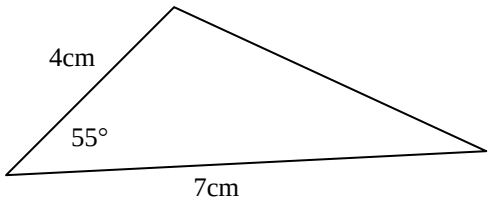
National 5 Homework : 1 year course
Triangle Trigonometry

1. Calculate the area of this triangle:-



$$\text{Area of triangle} = \frac{1}{2}ab\sin C$$

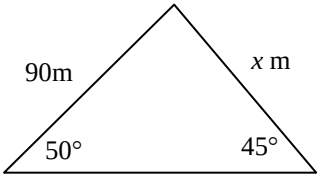
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$a^2 = b^2 + c^2 - (2bc\cos A)$$

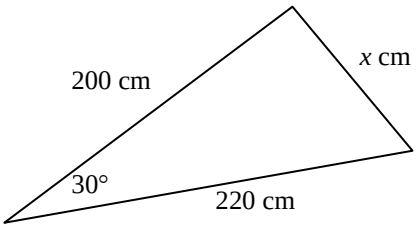
$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

2. Find *x* in each of the following questions:-

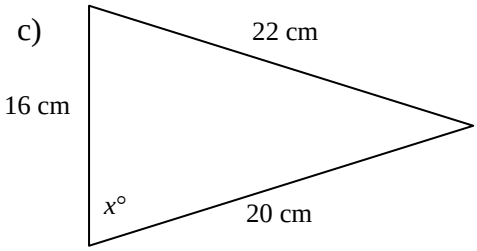
a)



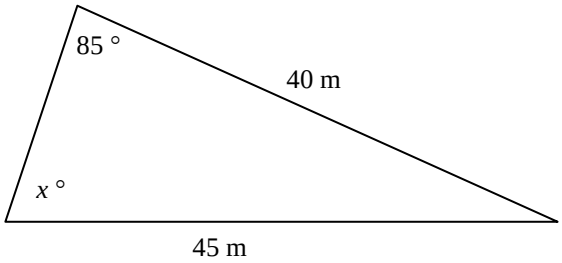
b)



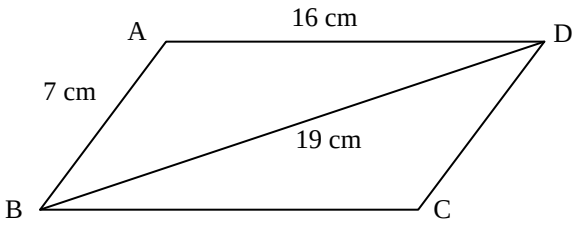
c)



d)



3. The sketch shows parallelogram, ABCD.



a) Calculate the size of angle ABD.
b) Hence calculate the area of the parallelogram.

4. A coastguard at A is 19 kilometres due west of a coastguard at B.
A tanker is spotted at T, such that angle ATB is 78º
The tanker is 13.7 km away from point A.
If the tanker is on a bearing of 040º from A find the distance from the tanker to the coastguard at point B