

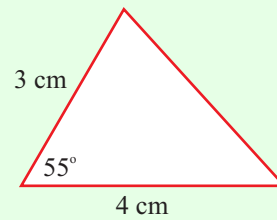
TRIGONOMETRY (Q 5, PAPER 2)

LESSON NO. 2: AREA OF NON RIGHT-ANGLED TRIANGLES

2007

- 5 (a) Calculate the area of the triangle shown.

Give your answer correct to one decimal place.



SOLUTION

AREA OF A NON RIGHT-ANGLED TRIANGLE

$$A = \frac{1}{2}ab \sin C \quad \dots\dots \mathbf{6}$$

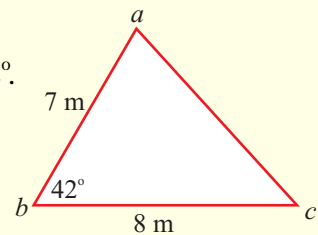
REMEMBER IT AS:

$$\text{Area} = \frac{1}{2} \times \text{Product of 2 sides} \times \text{Sine of the included angle}$$

$$A = \frac{1}{2}(3)(4) \sin 55^\circ = 4.9 \text{ cm}^2$$

2000

- 5 (a) In the triangle abc , $|ab| = 7 \text{ m}$, $|bc| = 8 \text{ m}$ and $|\angle abc| = 42^\circ$.
Calculate the area of the triangle, correct to one place of decimals.



SOLUTION

AREA OF A NON RIGHT-ANGLED TRIANGLE

$$A = \frac{1}{2}ab \sin C \quad \dots\dots \mathbf{6}$$

REMEMBER IT AS:

$$\text{Area} = \frac{1}{2} \times \text{Product of 2 sides} \times \text{Sine of the included angle}$$

$$A = \frac{1}{2}(7)(8) \sin 42^\circ = 18.7 \text{ m}^2$$