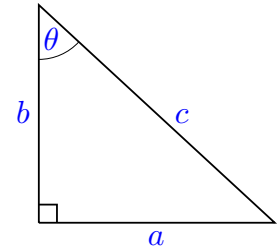


# Trigonometry



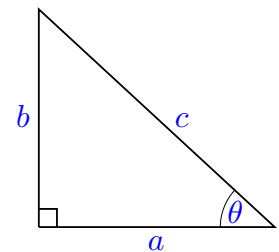
## i. Calculate the following lengths (give answers to 2 d.p.)

- The length of  $a$ , given that  $c = 4\text{cm}$  and  $\theta = 40^\circ$
- The length of  $a$ , given that  $c = 3\text{cm}$  and  $\theta = 50^\circ$
- The length of  $b$ , given that  $a = 3.5\text{cm}$  and  $\theta = 35^\circ$
- The length of  $b$ , given that  $c = 5\text{cm}$  and  $\theta = 42^\circ$
- The length of  $c$ , given that  $a = 2\text{cm}$  and  $\theta = 45^\circ$



## ii. Calculate the angle $\theta$ (give answers to 1 d.p.)

- Given that  $a = 4\text{cm}$  and  $b = 5\text{cm}$
- Given that  $a = 4\text{cm}$  and  $c = 6\text{cm}$
- Given that  $b = 3\text{cm}$  and  $c = 5\text{cm}$
- Given that  $a = 3\text{cm}$  and  $b = 2\text{cm}$
- Given that  $a = 5\text{cm}$  and  $c = 10\text{cm}$



## iii. Use the sine rule to calculate the following: (give answers to 1 d.p.)

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

- Given that  $a = 4\text{cm}$ ,  $A = 50^\circ$  and  $B = 40^\circ$ , find  $b$
- Given that  $b = 6\text{cm}$ ,  $B = 40^\circ$  and  $C = 60^\circ$ , find  $b$
- Given that  $a = 3\text{cm}$ ,  $b = 7\text{cm}$  and  $B = 45^\circ$ , find  $A$
- Given that  $a = 2\text{cm}$ ,  $c = 4\text{cm}$  and  $A = 22^\circ$ , find  $C$

