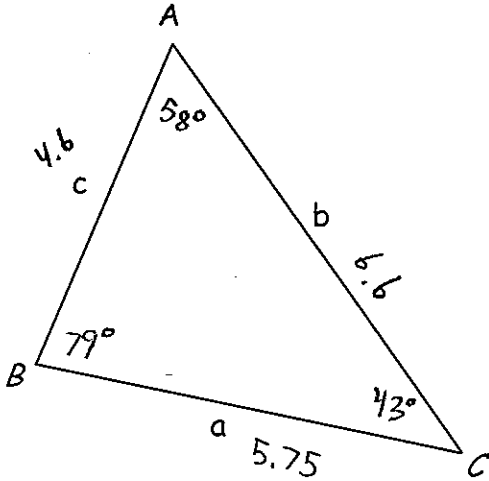


M20 Principles - Sine Law Investigation

Name: KEY

Measure and record all sides and angles in the following triangle.



$$a = \underline{5.75} \quad \angle A = \underline{58^\circ}$$

$$b = \underline{6.6} \quad \angle B = \underline{79^\circ}$$

$$c = \underline{4.6} \quad \angle C = \underline{43^\circ}$$

Use your calculator to complete the following calculations.

$$\frac{\sin A}{a} = \underline{0.147}$$

$$\frac{a}{\sin A} = \underline{6.780}$$

$$\frac{\sin B}{b} = \underline{0.149}$$

$$\frac{b}{\sin B} = \underline{6.724}$$

$$\frac{\sin C}{c} = \underline{0.148}$$

$$\frac{c}{\sin C} = \underline{6.745}$$

What do you notice? What can we say about acute non-right triangles?

The ratios of side-angle pairs in the \triangle are equal.

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