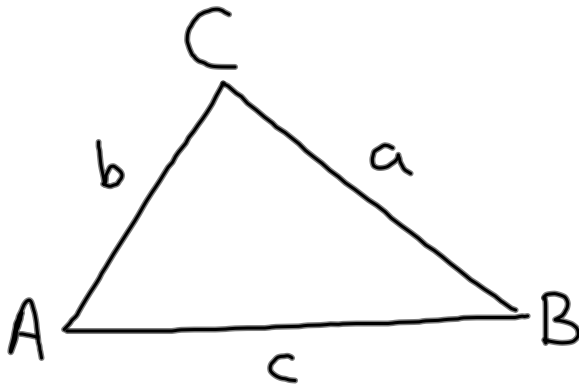
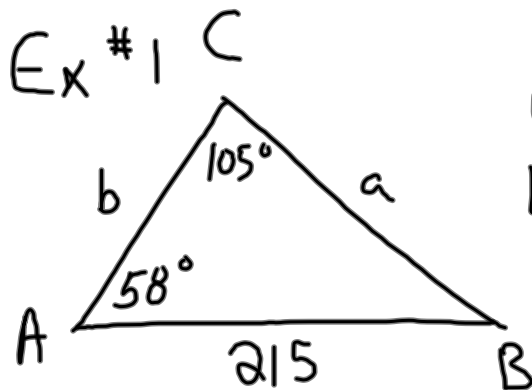


LAW OF SINES MAY 27/08



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



WHAT IS THE LENGTH OF a ?

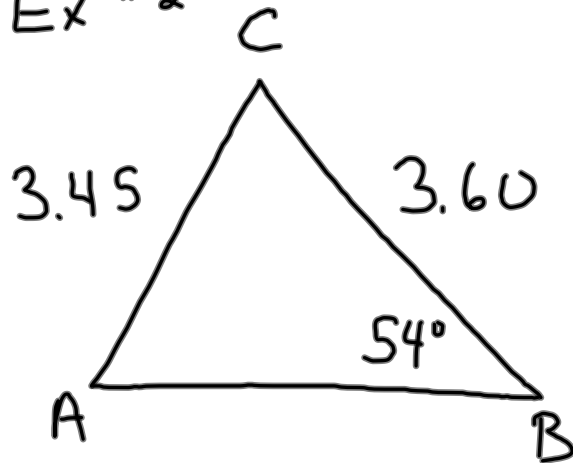
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{a}{\sin 58^\circ} = \frac{215}{\sin 105^\circ}$$

$$\frac{\cancel{\sin 105^\circ} a}{\cancel{\sin 105^\circ}} = \frac{215 \times \sin 58^\circ}{\sin 105^\circ}$$

$$a = 188.8 \text{ units}$$

Ex #2

WHAT IS $\angle A$?

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

$$\frac{3.60}{\sin A} = \frac{3.45}{\sin 54^\circ}$$

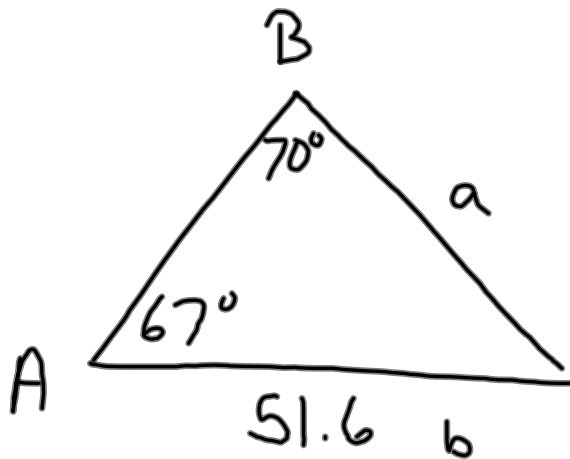
$$\frac{\sin 54^\circ \times 3.60}{3.45} = \frac{\cancel{3.45} \sin A}{\cancel{3.45}}$$

$$.84419 = \sin A$$

$$\sin^{-1}(.84419) = \angle A$$

$$58^\circ = \angle A$$

Ex #3 GIVEN $b = 51.6$, $\angle A = 67^\circ$
AND $\angle B = 70^\circ$ FIND a .



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

$$\frac{a}{\sin 67^\circ} = \frac{51.6}{\sin 70^\circ}$$

$$\frac{\cancel{\sin 70^\circ} a}{\cancel{\sin 70^\circ}} = \frac{51.6 \times \sin 67^\circ}{\sin 70^\circ}$$

$$a = 50.5 \text{ UNITS}$$