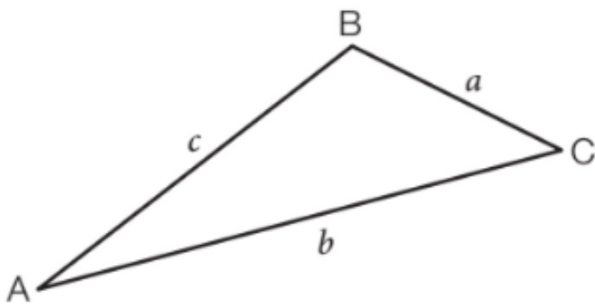


Name: _____ Block: _____ Date: _____

Lesson 15.4 - The Sine Rule



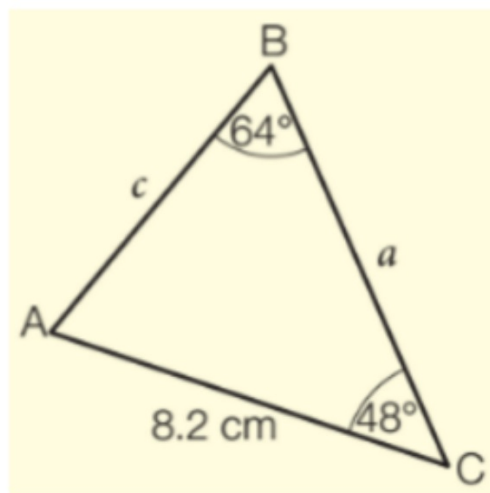
Side a is always opposite of angle A.

Side b is always opposite of angle B.

Side c is always opposite of angle C.

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

Example #1: Find the length of side AB.

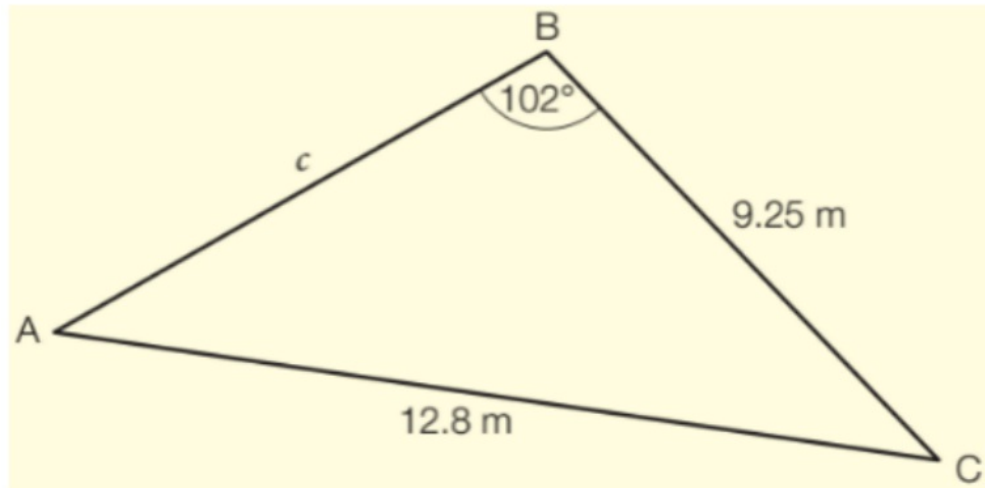


$$\frac{\sin 64}{8.2} = \frac{\sin 48}{C}$$

$$\frac{C \sin 64}{\sin 64} = \frac{8.2 \sin 48}{\sin 64}$$

$$C = 6.78 \text{ cm}$$

Example #2: Find the size of angle BAC.



$$\frac{\sin 102^\circ}{12.8} = \frac{\sin A}{9.25}$$

$$\frac{9.25 \sin 102^\circ}{12.8} = \frac{\cancel{12.8} \sin A}{\cancel{12.8}}$$

$$.707 = \sin A$$

$$\sin^{-1}(.707) = \sin^{-1}(\sin A)$$

$$45.0^\circ = A$$