

Name \_\_\_\_\_

Date \_\_\_\_\_

### Application of the Standard Law of Sines - Step-by-Step Lesson

In  $\triangle ABC$ , side  $a = 5$ ,  $m\angle A = 70^\circ$  and  $m\angle C = 48^\circ$ .

Find side  $c$  to the nearest tenth of an integer.

#### Explanation:

Step 1) We should know what we have to be find out.

“Find side ‘ $c$ ’ to the nearest tenth of an integer.”

$$\text{Step 2) } \frac{a}{\sin A} = \frac{c}{\sin C}$$

$$\frac{5}{\sin 70^\circ} = \frac{c}{\sin 48^\circ}$$

$$c \times \sin 70^\circ = 5 \times \sin 48^\circ$$

$$c \times 0.9397 = 5 \times 0.7431$$

$$c = \frac{5 \times 0.7431}{0.9397}$$

$$c = 3.95$$

So, the answer is 3.95

