

Solving triangles
using Sine law

Times New Ro

12

A

A

Aa

abc

A

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≡

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≡

≡

AaBbCcI

AaBbCcI

AaBbCcI

Caption

Normal

No Spac...

Find

Replace

Select

For each one, include a labeled diagram and a reason for how you got each angle measure and side length.

1. $\triangle ABC$, given $a = 5$ cm, $B = 46^\circ$ and $C = 62^\circ$.



$$\angle A = 180 - 46 - 62$$

$$\angle A = 72^\circ$$

$$\angle A = 72^\circ$$

$$\angle B = 46^\circ$$

$$\angle C = 62^\circ$$

$$a = 5 \text{ cm}$$

$$b = 3.8 \text{ cm}$$

$$c = 4.6 \text{ cm}$$

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

$$\frac{5}{\sin 72} = \frac{b}{\sin 46}$$

$$\frac{3.6}{\sin 72} = \frac{(\sin 72)(b)}{\sin 72}$$

$$3.8 = b$$

$$\frac{a}{\sin A} = \frac{\boxed{c}}{\sin C}$$

$$\frac{5}{\sin 72} = \frac{c}{\sin 62}$$

$$\frac{4.4}{\sin 72} = \frac{(\sin 72)(c)}{\sin 72}$$

$$4.6 \text{ cm} = c$$

#3, 4 for

HWorlk

#5, Laboh US

(Quiz tomorrow)