



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

$$\frac{5000}{\sin 38} = \frac{AC}{\sin B} = \frac{2000}{\sin C}$$

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$$(\sin C)(5000) = (\sin 38)(2000)$$

$$C = \sin^{-1}\left(\frac{(\sin 38)(2000)}{5000}\right)$$

$$C = 14.26^\circ$$

$$B = 180 - 38 - 14.26$$

$$B = 127.74^\circ$$

$$\frac{5000}{\sin 38} = \frac{AC}{\sin 127.74}$$

$$\cancel{\sin A} \left(\sin 127.74 \left(\frac{5000}{\sin 38} \right) = AC \right.$$

$$6422m = AC$$