

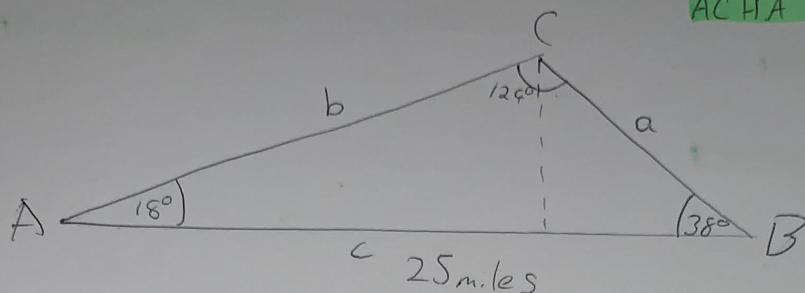
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Page 6 of 6

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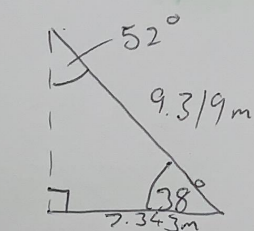
$$180 - 18 - 38 = 124^\circ$$

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

$$\frac{a}{\sin(18)} = \frac{25}{\sin(124)} \Rightarrow \frac{25}{\sin(124)} \times \sin(18) = a = 9.319 \text{ miles}$$

$$\frac{b}{\sin(38)} = \frac{25}{\sin(124)} \Rightarrow \frac{25}{\sin(124)} \times \sin(38) = b = 18.566 \text{ miles}$$

$$\frac{25}{\sin(124)} \times \sin(38) = b = 18.566 \text{ miles}$$



$$180 - 90 - 38 = 52$$

$$\frac{9.319}{\sin 90} = \frac{b}{\sin 52}$$

$$\frac{9.319}{\sin(90)} \times \sin(52) = 7.343 \text{ miles}$$

$$a^2 = b^2 + c^2 - 2bc \cos A$$

$$a^2 = 9.319^2 + 7.343^2 - (2 \times 9.319 \times 7.343) \cos 38$$

$$a^2 = 120.290$$

$$a = \sqrt{120.290} = 10.968 \text{ miles}$$