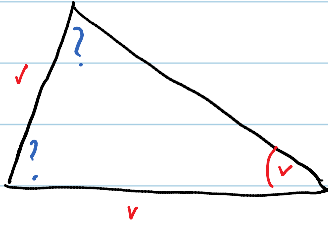
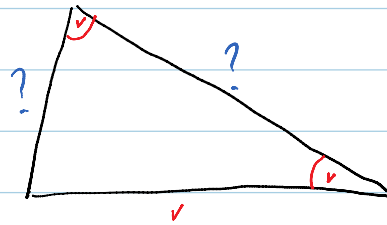
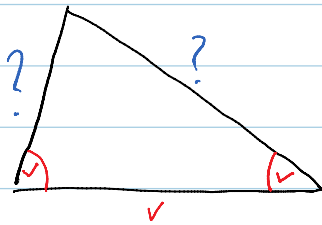


3.4 Solving Problems Using Acute Triangles

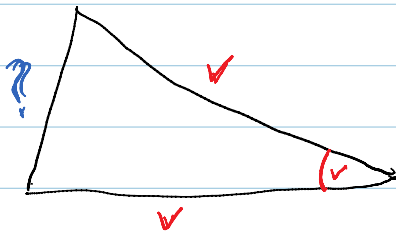
February-28-14
9:27 AM



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



Sine Law

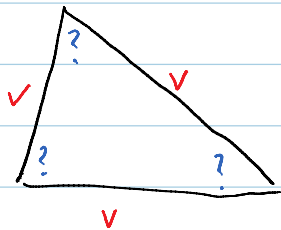


Cosine Law:

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

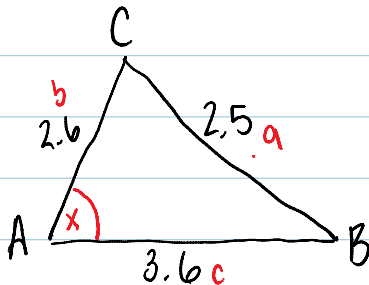
$$b^2 = a^2 + c^2 - 2ac \cos B$$

$$c^2 = a^2 + b^2 - 2ab \cos C$$



Cosine law

Ex. #1



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

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

$$2.5^2 = 2.6^2 + 3.6^2 - 2(2.6)(3.6) \cos A$$

$$6.25 = +19.72 - 18.72 \cos A$$

$$\begin{array}{r} -19.72 \\ \hline -13.47 \end{array} = \begin{array}{r} -19.72 \\ \hline -18.72 \end{array} \cos A$$

$$\begin{array}{r} -13.47 \\ \hline -18.72 \end{array} = \begin{array}{r} -18.72 \\ \hline -18.72 \end{array} \cos A$$

$$\begin{array}{r} -13.47 \\ \hline -18.72 \end{array} = \begin{array}{r} -18.72 \\ \hline -18.72 \end{array} \cos A$$

$$0.7196 = \cos A$$

$$\cos^{-1}(0.7196) = A$$

$$\cos^{-1}(0.7196) = A$$
$$\boxed{44^\circ} = A$$

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