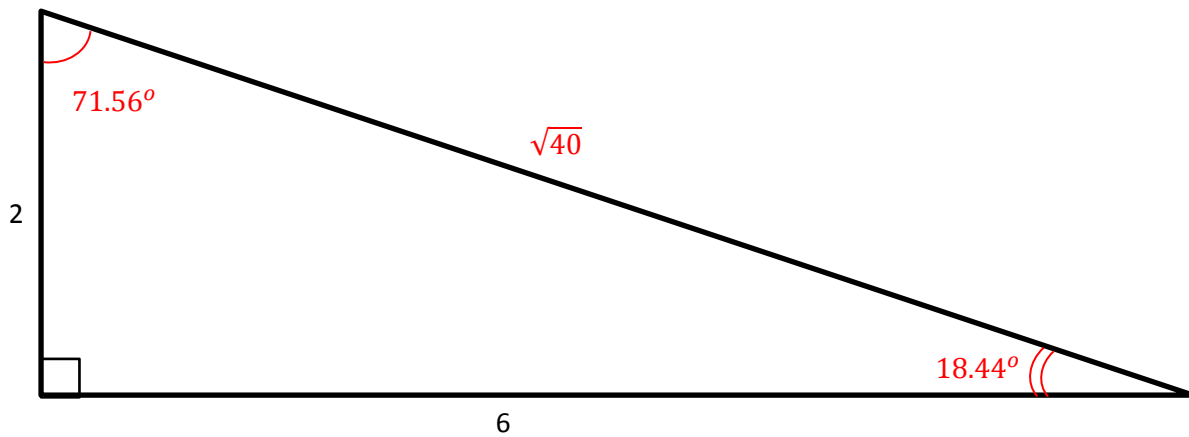


1) Solve the following right triangle. Be sure to show your work!



To find the hypotenuse use the Pythagorean theorem:

$$\begin{aligned}2^2 + 6^2 &= c^2 \\40 &= c^2 \\ \sqrt{40} &= c\end{aligned}$$

To find one angle, say the upper left, we can use a trig function. With all three sides you can use whichever function you like. I'll use sine:

$$\begin{aligned}\sin(\theta) &= \frac{6}{\sqrt{40}} \approx 0.95 \\ \theta &= \sin^{-1}\left(\frac{6}{\sqrt{40}}\right) \approx 71.56^\circ\end{aligned}$$

To get the third angle, either use another trig function or use the fact that all three angles add to 180° .