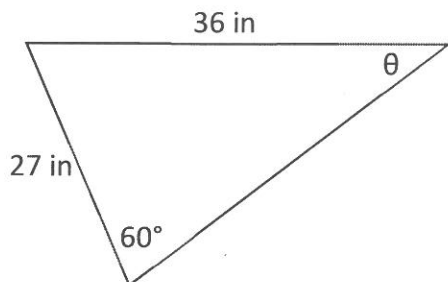


The Law of Sines can also be used to find the size of an angle. The set-up is the same but the use of the calculator is significantly different.

Example 5

Determine the size of the angle labelled θ .



Again, this question has a set of 'partners' GIVEN, which makes it a sine law question. Set it up the same way as examples 1-4, but now your unknown is one of the angles:

$$\frac{36}{\sin 60^\circ} = \frac{27}{\sin \theta}$$

$$\sin \theta = 27 \times \sin 60^\circ \div 36$$

$$\sin \theta = 0.649519052 \dots$$

The problem is that 0.6495... is NOT the answer. We are looking for just θ , and that decimal number is **sin** θ .

To find the actual answer (θ), you must type INVERSE SIN into your calculator. On your calculator, look for a button called '2nd' or 'Shift' or 'INV' (we will refer to it as the '2nd' button from now on); it is normally located near the TOP LEFT of all your calculator buttons. With the decimal number (0.6495...) still showing on the calculator screen, press 2nd sin. Check if your calculator is showing the answer (40.51°). If it is – great! You're done. If it is not, press your = (or ENTER) button. You should then see the answer at that point. Record the answer as follows:

$$\theta = 40.51^\circ$$

(Remember, if you cannot get YOUR calculator to display the correct answer, contact your online teacher for some guidance.)