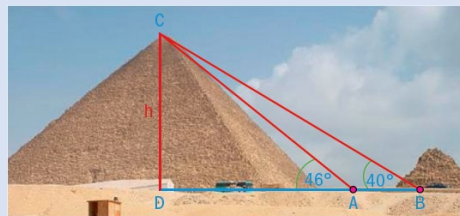


Chapter 6 / Example 14

Finding sides using the sine rule

The illustration to the right shows the angles of elevation of the highest point of the Great Pyramid of Giza, measured from two observation points A and B. The angle of elevation at A is 46° and the angle of elevation at B is 40° . Given that A and B are 35 m apart, find the height of the pyramid, h .



Open a new document and add a Calculator page.

Use the touchpad to click on the wheel icon in the page header.

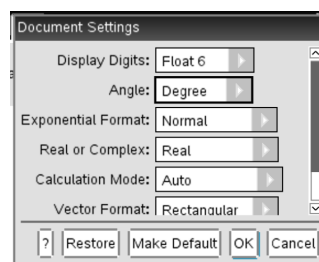


Select 2:Document Settings...

Select 'Degree' as the unit for Angle.

Use the touchpad to select OK or click **enter**.

The page header should now show 'DEG'.



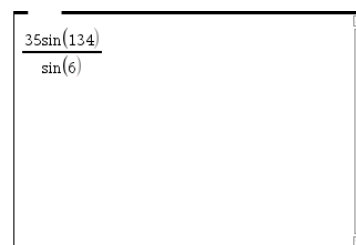
$$CB = \frac{35 \sin 134^\circ}{\sin 6^\circ}.$$

Press **ctrl** **÷** ($\frac{\square}{\square}$) to enter the fraction template.

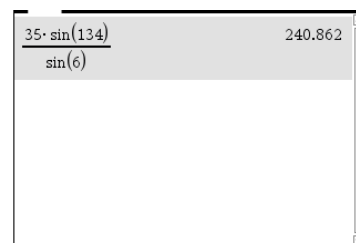
Type 35 sin 134 in the numerator and close the parentheses.

Press **▼** to move to the denominator.

Type sin 6 and close the parentheses. Press **enter**.



$$CB = 241 \text{ m to 3sf.}$$



Chapter 6 / **Example 14****Finding sides using the sine rule**

$$h = 241 \sin 40^\circ.$$

Using your GDC enter the expression $241 \times \sin 40^\circ$, copying the value found for CB by pressing **ctrl** **ans**.

$$h = 155 \text{ m}.$$

$35 \cdot \sin(134)$	240.862
$\sin(6)$	
$240.86160099175 \cdot \sin(40)$	154.823