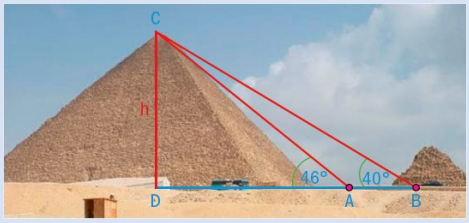
Chapter 6 / **Example 14**

Finding a length using the sine rule

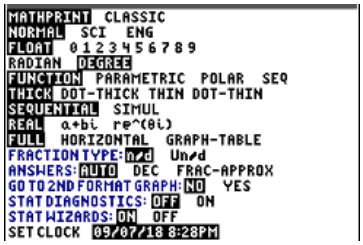
The illustration to the right shows the angles of elevation of the highest point of the Great Pyramid of Giza, measured from two observation points A and B. The angle of elevation at A is 46° and the angle of elevation at B is 40°. Given that A and B are 35 m apart, find the height of the pyramid, *h*.



Press [mode].

Use the [◄] [▲] [►] [▼] keys to place the cursor on DEGREE in the Mode menu, and then press [enter] to highlight it.

Press [2nd] [quit] to return to the home screen.



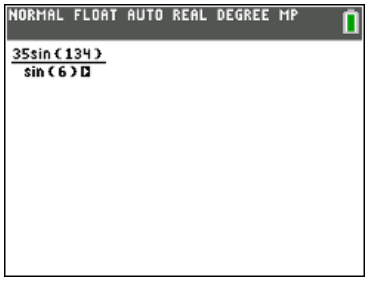
$CB = \dfrac{35\sin 134°}{\sin 6°}$.

Press [XtΘn] [f1] 1:n/d to add a fraction template.

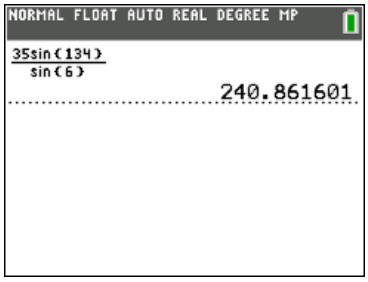
Type 35 [sin] 134 in the numerator and close the parentheses.

Press [▼] to move to the denominator.

Type sin 6 and close the parentheses. Press [enter].



$CB = 241$ m to 3sf.



$h = 241\sin 40°$.

Using your GDC enter the expression $241 \times \sin 40°$, copying the value found for *CB* by pressing [2nd] [ans].

$h = 155$ m.