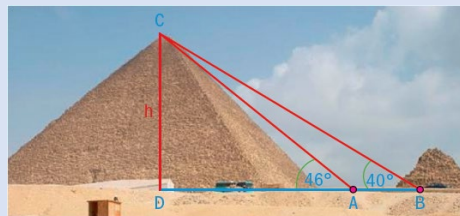


Chapter 6 / **Example 14****Finding a length using the sine rule**

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  $46^\circ$  and the angle of elevation at B is  $40^\circ$ . 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.

```
MATHPRINT CLASSIC
NORMAL SCI ENG
FLOAT 0 1 2 3 4 5 6 7 8 9
RADIAN DEGREE
FUNCTION PARAMETRIC POLAR SEQ
THICK DOT-THICK THIN DOT-THIN
SEQUENTIAL SIMUL
REAL a+bi re<θ>
FULL HORIZONTAL GRAPH-TABLE
FRACTIONTYPE: F1 Un/d
ANSWERS: AUTO DEC FRAC-APPROX
GO TO 2ND FORMAT GRAPH: NO YES
STAT DIAGNOSTICS: OFF ON
STAT WIZARDS: ON OFF
SET CLOCK 09/07/18 8:28PM
```

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

Press **[X][X][X][X]** **[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]**.

```
NORMAL FLOAT AUTO REAL DEGREE MP
35sin(134)
sin(6)
240.861601
```

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

```
NORMAL FLOAT AUTO REAL DEGREE MP
35sin(134)
sin(6)
240.861601
```

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

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

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

```
NORMAL FLOAT AUTO REAL DEGREE MP
35sin(134)
sin(6)
240.861601
Ans*sin(40)
154.8228528
```