Chapter 1 / **Example 9**

Using the sine rule to find an angle

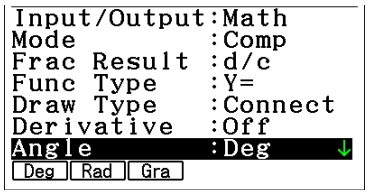
In a triangle Δ DEF, DE = 12 cm, EF = 14 cm and $\hat{DEF} = 45°$.
Draw a labelled diagram and find the size of the angle $\hat{EFD}$ to the nearest degree.

Press MENU 1 to display the Run-Matrix screen for arithmetical calculations.

Press SHIFT MENU (SETUP).

Scroll down using ▼ to Angle and change the setting to F1 Deg.

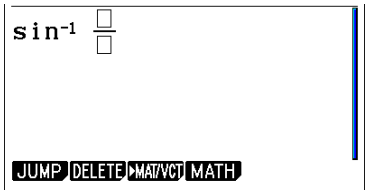
Press EXIT.



$\sin \hat{EFD} = \dfrac{12 \sin 45}{14}$

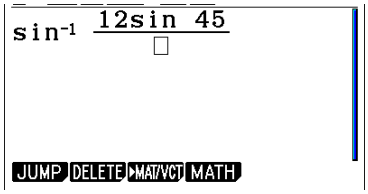
Using your GDC enter the expression $\hat{EFD} = \sin^{-1} \dfrac{12 \sin 45}{14}$ directly.

Press SHIFT $\sin^{-1}$ then press ▭ to add a fraction template.



Type 12 sin 45 in the numerator.

Close the parentheses and then press ▼ to move to the denominator.



Type 14 in the denominator.

Press EXE.

$\hat{EFD} = 37°$ (to the nearest degree).