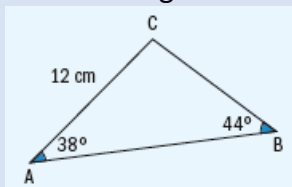


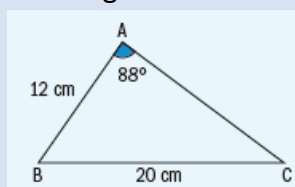
Chapter 11 / Example 9

Using the sine rule

1 Find the length of side BC.



2 Find angle C.



Press **MENU** 1 **RUN-MAT** 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**.

```
Input/Output: Math
Mode          : Comp
Frac Result   : d/c
Func Type     : Y=
Draw Type     : Connect
Derivative    : Off
Angle         : Deg
Deg Rad Gra
```

$$a = \frac{12 \sin 38^\circ}{\sin 44^\circ}$$

Press **□** to add a fraction template.

Type 12 **sin** 38 in the numerator.

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

Type **sin** 44 and close the parentheses. Press **EXE**.

```
□
□
JUMP DELETE MAT/VCT MATH
```

$$a = 10.6 \text{ to 3s.f.}$$

```
12sin 38
sin 44      10.63535404
□
JUMP DELETE MAT/VCT MATH
```

$$\sin C = \frac{12 \sin 88}{20}$$

Using your GDC enter the expression $C = \sin^{-1}\left(\frac{12 \sin 88}{20}\right)$ directly.

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

```
12sin 38
sin 44      10.63535404
sin^-1 □
□
JUMP DELETE MAT/VCT MATH
```

Chapter 11 / Example 9

Using the sine rule

Type 12 \sin 88 in the numerator

Close the parentheses and then press \blacktriangledown to move to the denominator.

$$\frac{12\sin 38}{\sin 44} = 10.63535404$$

$$\sin^{-1} \frac{12\sin 88}{10.63535404} = 20$$

Type 20.

Press EXE .

$C = 36.8^\circ$

$$\frac{12\sin 38}{\sin 44} = 10.63535404$$

$$\sin^{-1} \frac{12\sin 88}{10.63535404} = 20$$

$$C = 36.84372485$$