

Chapter 3 / **Example 12****Modulus of complex numbers**

Find the modulus of the following complex numbers.

a $5 - 12i$ **b** $\frac{1}{2} - \frac{1}{4}i$ **c** $\frac{20i - 21}{29}$

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

To enter the modulus function press **F4** MATH **F3** Abs

Type $5 - 12i$.

To enter i press **SHIFT** 0 i

Press **EXE**.

$$|5 - 12i| = 13$$

Enter the modulus function by pressing **F3** Abs

Type $\frac{1}{2} - \frac{1}{4}i$ using the fraction template **□** to enter the fractions.

To enter i press **SHIFT** 0 i

Press **EXE**.

$$\frac{1}{2} - \frac{1}{4}i = \frac{\sqrt{5}}{4}$$

Enter the modulus function by pressing **F3** Abs

Type $\frac{20i - 21}{29}$ using the fraction template, **□** to enter the fraction.

Press **EXE**.

$$\frac{20i - 21}{29} = 1$$