

Chapter 1 / **Example 43****Calculating values using factorials**

Find the value of these expressions:

**a**  $\frac{7!}{5!}$

**b**  $\frac{3!}{5!}$

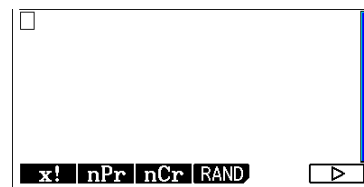
**c**  $\frac{8! \times 4!}{10!}$

**d**  $\frac{7! \times 5!}{10! \times 6!}$

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

Press **OPTN** **F6**  $\triangleright$  **F3** PROB

You will see a menu of probability functions.



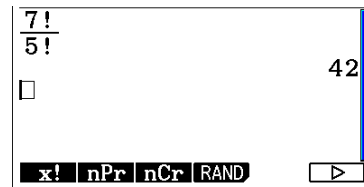
Press **□** to select the fraction template.

Type 7 and press **F1** x!

Then press  $\nabla$  to move to the denominator type 5 and press **F1** x!

Press **EXE**.

$$\frac{7!}{5!} = 42$$

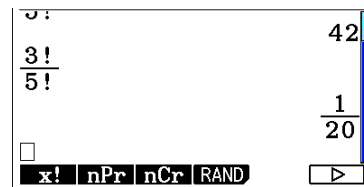


The menu of probability functions will remain on the screen.

Press **□** to select the fraction template.

Enter 3! In the numerator, 5! In the denominator and press **EXE**.

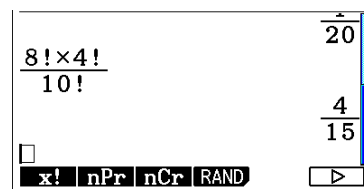
$$\frac{3!}{5!} = \frac{1}{20}$$



Press **□** to select the fraction template.


Enter 8!×4! In the numerator, 10! In the denominator and press **EXE**.

$$\frac{8! \times 4!}{10!} = \frac{4}{15}$$



Chapter 1 / **Example 43**

# Calculating values using factorials

Press  to select the fraction template.

Enter  $7! \times 5!$  in the numerator,  $10! \times 6!$  in the denominator and press **EXE**.

$$\frac{7! \times 5!}{10! \times 6!} = \frac{1}{4320}$$

