

## Factorials

A factorial is a way to multiply consecutive integers using a shorthand notation. For example,  $5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 120$ . But rather than using the calculator's multiplication key over and over again, you can use the factorial key as a simpler way to compute factorials.

Compute each factorial below:

$$6! =$$

$$9! =$$

$$20! =$$

$$27! =$$

Which of the following factorials **CANNOT** be computed? Verify your answer with the calculator and with an explanation written in complete sentences.

$$1!$$

$$0!$$

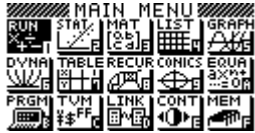
$$(1/2)!$$

$$(.4)!$$

## Keystrokes for the *fx-9750G Plus*

While it is possible to access the factorial command from most menus, the best one is the RUN menu. This allows you to best see the problem on the calculator screen.

From the main menu, press 1 for RUN.



To compute a factorial, you need to input it into the calculator as it is written in the problem. In other words, you need to put a number in first followed by the factorial command (the exclamation point).

To compute  $6!$ , enter a 6 onto the screen.

6

Press the OPTN key. This gives you five additional menu options at the bottom of the screen as well as an arrow indicating more options when you press the arrow.

6



When you press the arrow (F6), you see four more options.

6



Press F3 for PROB to see the first four probability options. The factorial option is F1. Press that to get the factorial command on the screen. Press EXE to see the answer.

6

6!

6!

720



