

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

Find the value of these expressions:

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

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

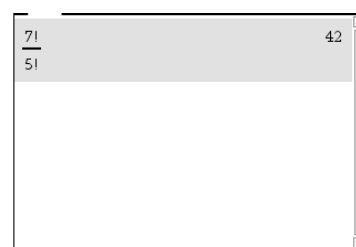
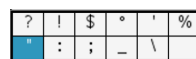
c $\frac{8! \times 4!}{10!}$

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

Open a new document and add a Calculator page.

Press **ctrl** $\left[\frac{\square}{\square}\right]$ open the fraction template.Type 7, press **[!]** and select !Then press **▼** to move to the denominator type 5 and !Press **enter**.

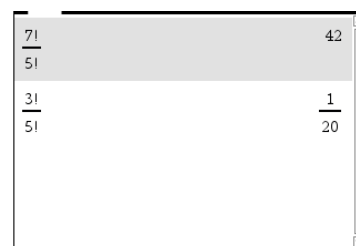
$$\frac{7!}{5!} = 42$$

Press **ctrl** $\left[\frac{\square}{\square}\right]$ to select the fraction template.

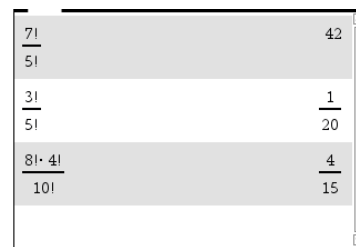
Enter 3! In the numerator, 5! In the denominator and press

enter.

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

Press **ctrl** $\left[\frac{\square}{\square}\right]$ to select the fraction template.Enter 8!× 4! In the numerator, 10! In the denominator and press **enter**.

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

Press **ctrl** $\left[\frac{\square}{\square}\right]$ to select the fraction template.Enter 7!× 5! In the numerator, 10!× 6! in the denominator and press **enter**.

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

