

Module 4: Expressions and equations

Part A – Exponents, order of operations and factoring

To evaluate an exponent use the exponent button $x^{\square}$. Enter the base then press $x^{\square}$ and then enter the power.

3^5 $\square$ $x^{\square}$ 5 $=$
 $(-1.9)^3$ $(-)$ 1 $.$ 9 $)$ $x^{\square}$ 3 $=$
 $(\frac{2}{5})^4$ $($ $\frac{\square}{\square}$ 2 $\downarrow$ 5 $\rightarrow$ $)$ $x^{\square}$ 4 $=$

3^5
 243
 $(-1.9)^3$
 $-\frac{6859}{1000}$
 $(\frac{2}{5})^4$
 $\frac{16}{625}$

The most often used exponent is the power of 2 or square, there is a dedicated button for squares x^2 . Keep in mind the exponent button $x^{\square}$ works the same way.

7^2 7 x^2 $=$
 7^2 7 $x^{\square}$ 2 $=$

7^2
 49
 $7^{\square}$
 7^2
 49

The calculator will follow the order of operations. Enter the expression and press $=$.

$9 \div (\frac{1}{3}) \times (1 + (-\frac{5}{3}))$ 9 $\div$ $($ $\frac{\square}{\square}$ 1 $\downarrow$ 3 $\rightarrow$ $)$ $\times$
 $($ 1 $+$ $($ $(-)$ 5 $\frac{\square}{\square}$ 3 $\rightarrow$ $)$ $)$ $=$
 $)$ $=$

$9 \div (\frac{1}{3}) \times (1 + (-\frac{5}{3}))$
 -18

A word of warning: Avoid implied multiplication. Enter exactly what you want. All of the above are the same with different answers.

$$\frac{9}{3} \times (1 + 2) \text{ or } \frac{9}{3 \times (1+2)} \text{ or } 9 \div 3 \times (1 + 2)$$

Screen 1: $9 \div 3(1+2)$ → 1
 Screen 2: $9 \div 3 \times (1+2)$ → 9
 Screen 3: $9 \div (3 \times (1+2))$ → 1
 Screen 4: $\frac{9}{3} \times (1+2)$ → 9
 Screen 5: $\frac{9}{3 \times (1+2)}$ → 1

To find the prime factorization of any number enter the number and press

$\boxed{=}$. To see it factored press

$\boxed{1} \boxed{2} \boxed{4} \boxed{=}$

$\boxed{\text{ALPHA}} \boxed{\text{FACT}}$ (FACT)

You can only factor positive numbers.

Screen 1: 124 → 124
 Screen 2: 124 → $2^2 \times 31$