

Evaluating Expressions with Exponents Using the *fx-7400G PLUS* A Pre-Algebra Activity

Evaluating expressions with a graphing calculator is an excellent way for pre-algebra students to reinforce their skills as well as check their work on practice problems.

Exercise 1:

Evaluate $-7a^2b^4c$ on your *fx-7400G PLUS* graphing calculator if $a = 5$, $b = -3$ and $c = 8$.

Keystrokes:

5 → ALPHA A EXE

(-) 3 → ALPHA B EXE

8 → ALPHA C EXE

To evaluate the expression enter $(-) 7 A X^2 B^4 C$ EXE

5→A	5
-3→B	-3
8→C	

$-7A^2B^4C$	-113400
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Exercise 2:

Evaluate $-3x^4$ and $(-3x)^4$ if $x = -2$, and explain why the answers are different.

Keystrokes:

(-) 2 → X,T EXE

To evaluate the first expression enter $(-) 3 X,T ^4$ EXE

To evaluate the second expression, enter $((-) 3 X,T) ^4$ EXE

$-2 \rightarrow X$	-2
$-3X^4$	-48

-2	-2
$-3X^4$	-48
$(-3X)^4$	1296

Exercise 3:

Evaluate $\frac{m^2}{(n-4)^3}$ if $m = 25$ and $n = -1$.

Keystrokes:

25 → ALPHA M EXE

(-) 1 → ALPHA N EXE

To evaluate the expression, enter $M X^2 \div (N - 4)^3$ EXE.

25 → M	25
- 1 → N	- 1

$M^2 \div (N - 4)^3$	- 5
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