Graphing Equations

Tips for Logarithms

- If the base is not 10, use (MATH, UP, UP, ENTER) to open the logBASE function. This only works with calculators with the newer operating system.
- Be careful with your parentheses!
  - log x + 1 should be entered as log (x) + 1.
  - log (x+1) should be entered as log (x+1)

$$f(x) = \log_7 x - 5$$

$$f(x) = \log_4(x + 2)$$

Tips for Rationals (Fractions)

- If you have a calculator with the newer operating system, you can bring up a fraction template using (MATH, RIGHT, UP, ENTER).
- If you using a calculator with the older operating system, you must use parentheses around your numerator and your denominator.
- $\frac{x+1}{x^2+2x+3}$ should be entered as (x+1)/(x^2+2x+3)

$$f(x) = \frac{(x-5)}{x^2-9}$$

$$f(x) = \frac{x}{x-9}$$

Tips for Exponentials and Radicals

- It is always safest to put parentheses around each section of the equation.
- $(2x)^{5x}$ should be entered as (2x)^(5x).
- $\sqrt{x^2+2x-3}+5$ should be entered as $(\sqrt{x^2+2x-3})+5$ since the +5 is not under the radical.
- If the radical has an index other than 2, use (MATH, Option 5) to enter the radical. If you are using the old operating system, you must enter the index before pressing (MATH, 5). If you are using the new operating system, press (MATH, 5) and then type in the index.

$$f(x) = (2x)^{x^2}$$

$$f(x) = \sqrt[5]{x-4}+1$$