

Calculator Lab 2

1. Evaluate $\frac{x+4}{5-x}$ at $x = -6$ and $x = -2$.

Method 1: Enter -6,STO,X,ALPHA :, then the expression, ENTER. MATH→1 will convert to a fraction. Now evaluate at $x = -2$.

Method 2: Define the function y_1 in the $y =$ menu. 2nd→QUIT to get to main screen. Enter $y_1(-6)$ and $y_1(-2)$ using VARS→Y-VARS→ y_1 to get the function name.

2. Graph $2y + x^3 = 4x$. Find the x-intercept (can use CALC→ZERO or TRACE (or MATH→0) or ROOT on TI-82), y-intercept (CALC→VALUE at x=0 or TRACE), local (relative) min and max (CALC→MIN and MAX or TRACE).

3. Graph the composition $f \circ g$ of $f(x) = 4x - 8$ and $g(x) = x^2$. Find the composition by hand to see if you agree with the graph.

(To define do so, define $y_1 = f(x)$, $y_2 = g(x)$ and $y_3 = y_1(y_2)$. Use VARS→Y-VARS→Function to get y_1 and y_2 variables. Place cursor over “=” sign and press enter to turn off the graph of y_1 and y_2).