MAT 136 (Calculus I), Prof. Jim Swift
Worksheet 3, Linear, Polynomial, and Exponential Functions

Do these problems on your own paper, or on a tablet with the downloaded pdf. I suggest you work in teams. You do not have to turn in the worksheet, or upload it to Canvas.

1. A linear function f satisfies $f(5) = 4$ and $f(6) = 7$. Fill in the blanks with numbers.

(a) Find the slope of the function f and then write a formula for $f(x)$ using the point-slope form:

$m = $ ____ , and $f(x) = $ ____$(x - 5) + $ ____

(b) Write the formula for $f(x)$ using the slope-intercept form: $f(x) = $ ____ $x + $ ____.

2. An exponential function g satisfies $g(0) = 3$ and $g(1) = 6$. Find a formula for $g(x)$ in the form $g(x) = a \cdot b^x$.

Then, work on problems 14 and 15 on WeBWorK set 2. These are especially good with teams.