Written HW3 – MATH 1540 Fall 2020

Due by Monday, 31 August for timely completion credit

In this homework you should use function transformations to sketch the graph of the function (see 26 August notes). A complete answer will look similar to the example in the 26 August notes on p.1. Complete answers must include a step for each transformation involved, it should start with the "fundamental" function, each plot should be shaped correctly, which transformation is being applied needs to be stated ("vertical shift" or similar), the graph in each plot must be labeled for what it is, and at least two points must be plotted that are carried throughout as the function is transformed.

1. Sketch $f(x) = (x-5)^2 + 2$
2. Sketch $g(x) = 3\sqrt{(2x)}$
3. Sketch $h(x) = |8x| + 7$
4. Sketch $\ell(x) = -2x^3 - 5$