Homework 3

Name: Date: May 22, 2013

P 1. Sketch the graph of
$$f(x) = -2\csc\left(\pi x + \frac{\pi}{4}\right) + 5.$$

Make sure to include two full periods. Identify the asymptotes. Also include a table of "nice" values for which to evaluate f and the corresponding values of f.

P 2. Sketch the graph of
$$g(x) = 3 \tan\left(x - \frac{2\pi}{3}\right) - 1.$$

Make sure to include three full periods. Identify asymptotes. Also include a table of "nice" values for which to evaluate g and the corresponding values of g.

P 3. Sketch the graph of
$$h(x) = 1400 \sin\left(\frac{\pi}{2}x - \frac{\pi}{6}\right) + 20.$$

Include one cycle. Identify the amplitude, period, phase shift, and midline. Also include a table of "nice" values for which to evaluate h and the corresponding values of h.

P 4. Sketch the graph of
$$f(x) = 9 \csc\left(\frac{\pi}{4}x + \frac{\pi}{3}\right) - 198.$$

Include two full periods. Identify the asymptotes. Also include a table of "nice" values for which to evaluate f and the corresponding values of f.

P 5. Sketch the graph of
$$g(x) = 2\cot\left(x - \frac{\pi}{3}\right) + 1.$$

Make sure to include three full periods. Identify asymptotes. Also include a table of "nice" values for which to evaluate g and the corresponding values of g.