Calculus with Analytic Geometry II

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1 Algebra/Trig Worksheet

I. Sketch the graph of $f(x) = 2^x$, $g(x) = (1/2)^x$, and their inverse functions.

II. Show that each log property can be derived from the corresponding exponential property.

III. Derive the pythagorean identity with secant and tangent functions.

IV. Complete the unit circle for the following radians:

$$0, \ \frac{\pi}{6}, \ \frac{\pi}{4}, \ \frac{\pi}{3}, \ \frac{\pi}{2}, \ \frac{2\pi}{3}, \ \frac{3\pi}{4}, \ \frac{5\pi}{6}, \ \pi, \ \frac{7\pi}{6}, \ \frac{5\pi}{4}, \ \frac{4\pi}{3}, \ \frac{3\pi}{2}, \ \frac{5\pi}{3}, \ \frac{7\pi}{4}, \ \frac{11\pi}{6}.$$