

TMATH 124: Quiz 2

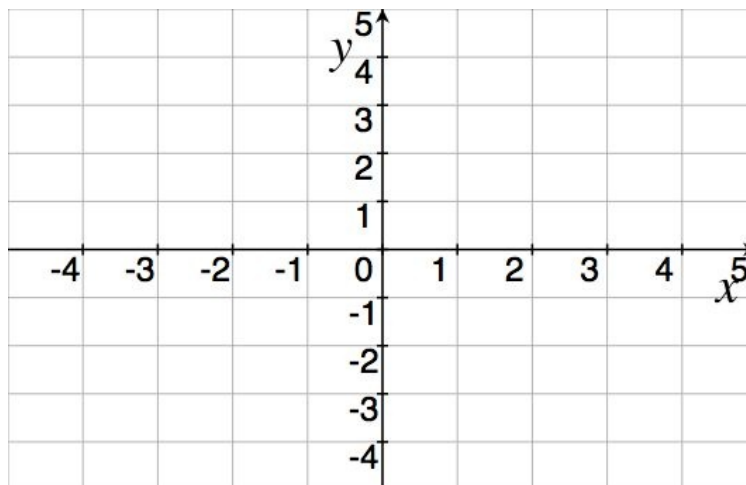
Show *all* your work (numerically, algebraically, or geometrically) for each and simplify. No credit is given without supporting work. No calculators or notes are allowed.

1. [4] (Day 3 & 4) Draw a function g such all three conditions below are met:

(a) $\lim_{x \rightarrow -\infty} g(x) = 1$

(b) g is *not* continuous at $x = 1$.

(c) $g'(3) = 0$



2. [3] Find a rule for the function g you drew above that satisfies the four conditions.

3. (WebHW5 #5) [3] Find the equation of the line tangent to $f(x) = 6 + 4x^2$ when $x = 1$