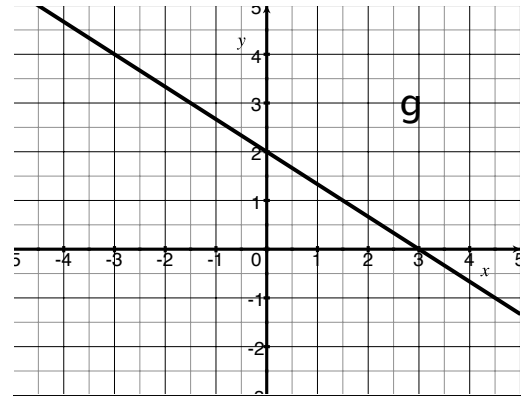
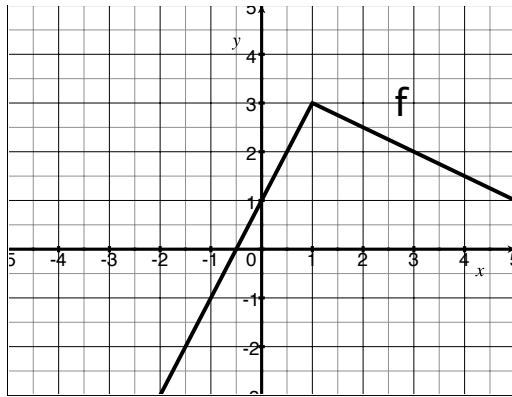


TMATH 124: Quiz 3

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] (CC9 #2) Use the graphs of f and g on the left and right respectively to estimate the following:



$$(f \cdot g)'(0)$$

$$\frac{d}{dx} (f \circ g) |_{x=3}$$

2. (WebHW9 #10) [3] Find the equation of the line tangent to $\sin(\sin(x))$ when $x = 4\pi$.

3. (ExtraPractice Day 9) [3] Find where the function $f(x) = \frac{5x}{1+3x^2}$ has a horizontal tangent line.