# Quiz 2

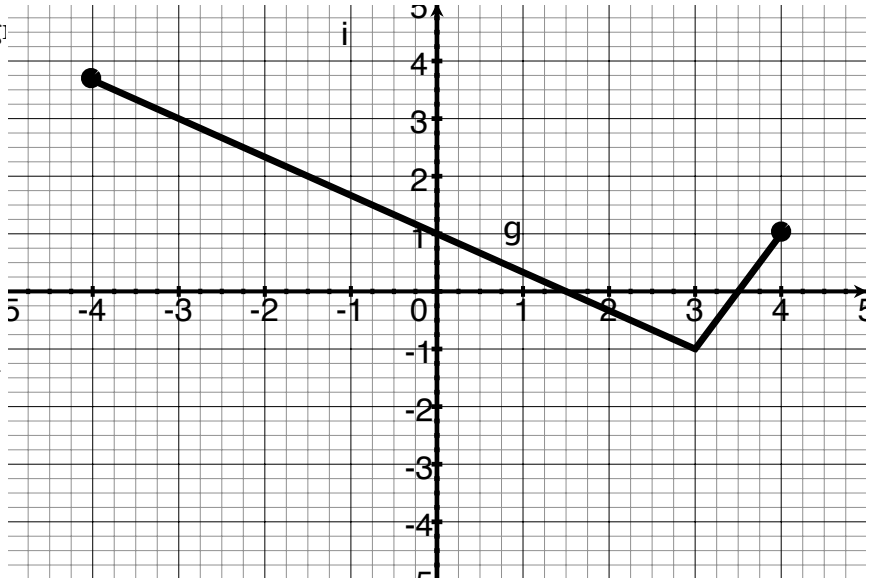
Show *all* your work. No credit is given without reasonable supporting work. There are *two* sides to this quiz.

1. [2] (Line Wks #13) Find the equation of a line perpendicular to the line that passes through $(-2, -1)$ and $(4, 3)$. Note, there are many right answers!

2. [1] (§1.6 #20) Let $f(x) = 2x + 1$ and $g(x) = 3x^2 - x$. Find $(f \cdot g)(-2)$

3. Let $g$ be the piecewise defined g

(a) [2] (WebHW5 #11)
Find $(g \circ g)(-3)$




(b) [3] (GraphTransf Wks #1)
Given that $g$ is comprised of two lines, find the piecewise defined algebraic rule of $g$ in the form below.

$$f(x) = \begin{cases} & \text{if } -4 \leq x < 3 \\ & \text{if } 3 \leq x \leq 4 \end{cases}$$

(c) [2] (§1.5 #86)
Graph the function $\frac{1}{2}g(x)$.