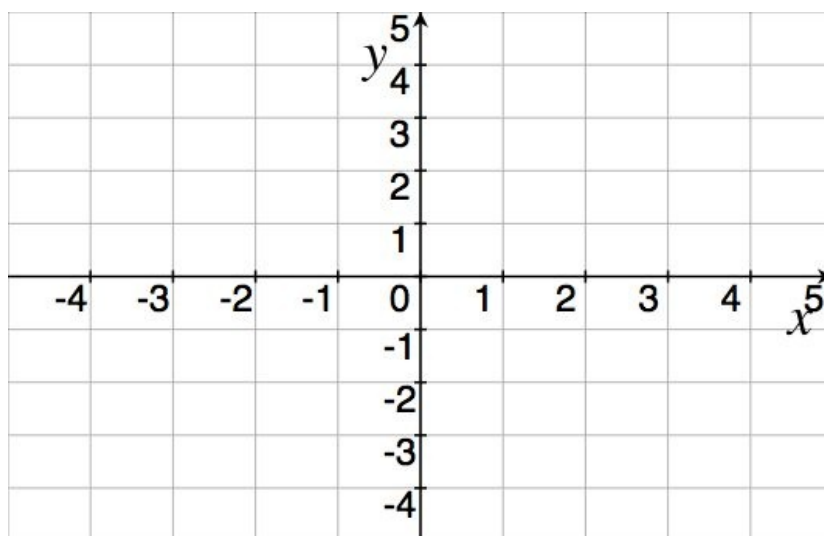# Quiz 2

Show *all* your work. No credit is given without reasonable supporting work. There are *two* sides to this quiz.
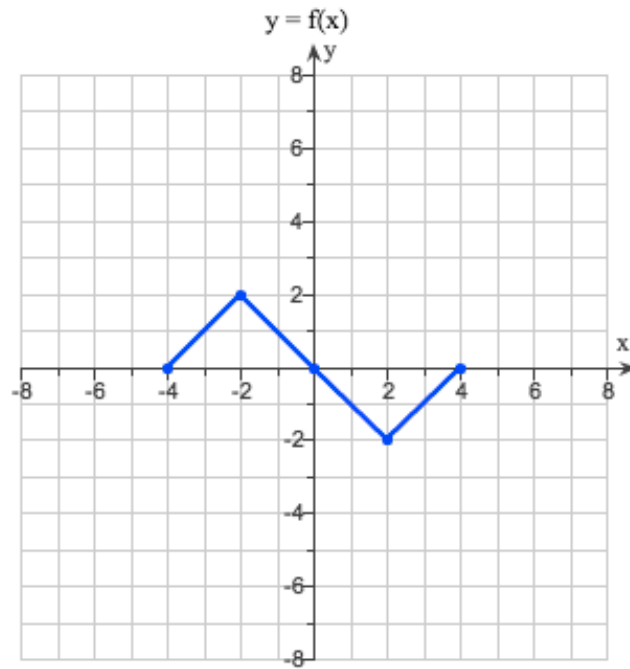
1. (Line Wks #13c)

    (a) [1] Draw a line that passes through $(-2, 1)$ and $(-4, 3)$ on the graph provided.

    (b) [3] Find the equation of a line perpendicular to the line that passes through $(-2, 1)$ and $(-4, 3)$ but passes through $(2, 0)$.

2. [2] (WebHW3 #19) Given the piece-wise defined function f shown below. Graph $g(x) = f(x+2) + 3$.

y = f(x)

3. (§1.6 #20) Let $f(x) = \frac{x^2 + x - 6}{x^2 - 9}$ and $g(x) = x^2\sqrt{9 - 4x}$

   (a) [2] Find the rule for $f + g$.

   (b) [2] Find the rule for $g \circ f$.