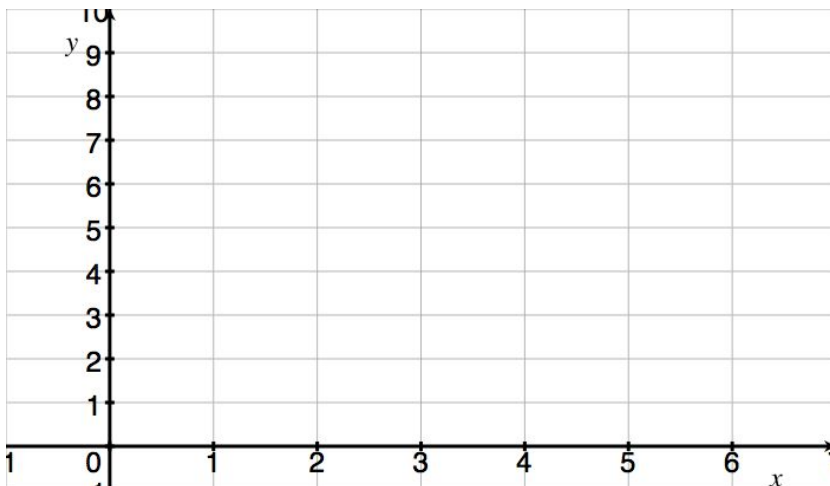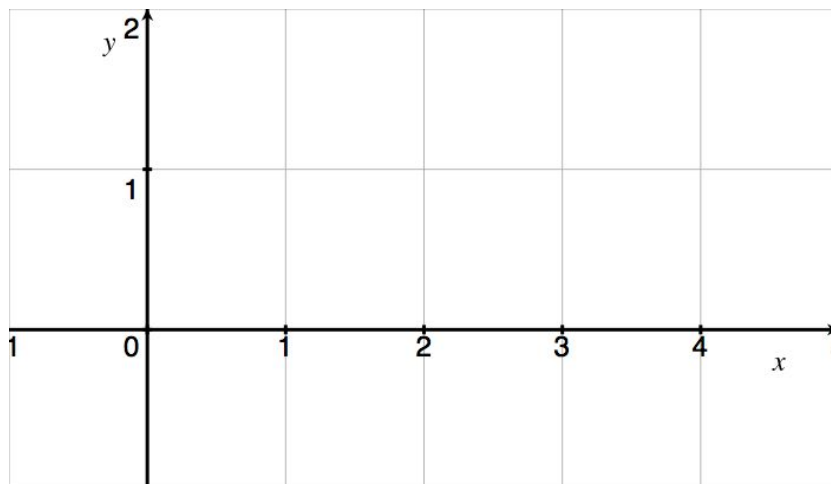# Quiz 5
Math 252

Show *all* your work (algebraically, geometrically, or calculus) for the following.

1. [4] Given the graph of a force function with respect to distance below, graph the total work as a function of distance. *Hint: how much work has been done at distance 0,1,2,...?*

2. (a) [1] Carefully, draw the area bounded by the graphs of $y = x^4$, $y = 0$, $x = 1$.

(b) [5] Find the volume of the solid obtained by rotating the region bounded above around the line $x = 2$. *Hint: the answer is $\frac{7\pi}{15}$.*