

Quiz 1

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

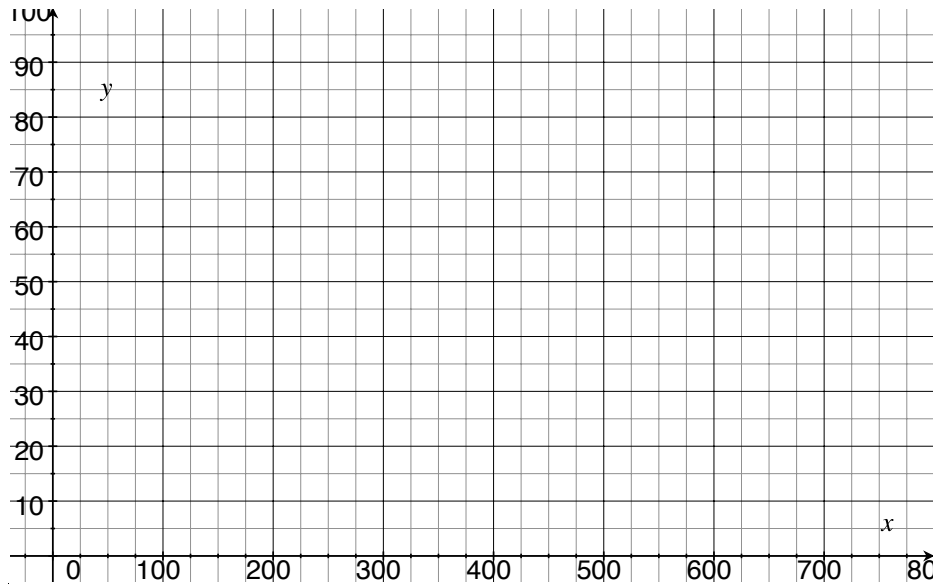
1. (9/28 Worksheet) Let C be the piecewise defined function:

$$C(x) = \begin{cases} 39 & \text{if } 0 \leq x \leq 400 \\ 39 + 0.2(x - 400) & \text{if } 400 < x \end{cases}$$

(a) [1] Find $C(500)$.

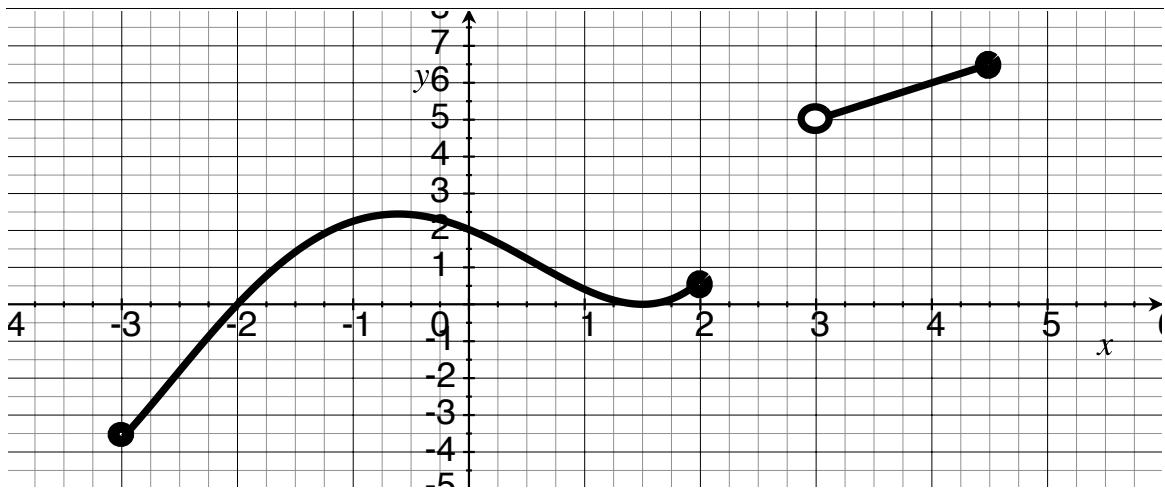
(b) [1] What is the domain of C ?

(c) [3] Graph C on the axis below:



2. (WebHW2 #4) [2] Given that $g(x) = \frac{5-x}{5+x}$, find $g(a-5)$.

3. Use the the graph of f shown below to answer the following questions:



(a) (§2.2 #25c[1] Estimate all numbers x in the domain of f for which $f(x) = 6$.

(b) (§2.2 #23b)[2] What is the range of f ?