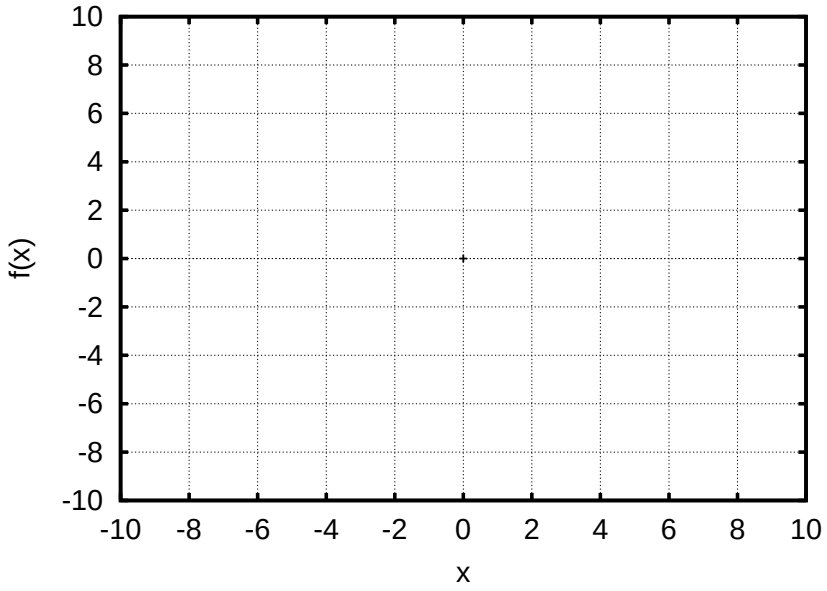
Pondering Inverses

Consider $f(x)$ given below:

x	$f(x)$
-2	-6
-1	-4
0	-2
1	0
2	2
3	4

1. What is $f^{-1}(0)$?
2. What is $f^{-1}(-4)$?
3. Graph $f(x)$.
4. Graph $f^{-1}(x)$.
5. How are the graphs of $f(x)$ and $f^{-1}(x)$ related? Why?



Let $S(Q)$ give the fraction of TAB patrons consuming salads as a function of the quality of lunch. Assume that the lunch quality Q is measured on a scale of 1 to 5, with 5 indicating yumminess and 1 indicating inediblity.

1. Sketch a possible graph for $S(Q)$.
2. Sketch the inverse of $S(Q)$.
3. What is the meaning of $S(4.2) = 0.5$?
4. What is the meaning of $S^{-1}(0.78) = 3.9$?