

Functions 6b– Inverse Functions Continued Homework #6

1. Determine the inverse function for each of the following functions. Then for #a&b only: compose the original function with your answer to confirm that they are indeed inverses.

a. $f(x) = \frac{1}{2}x + 6$

b. $f(x) = 2x^2 - 11$

c. $f(x) = \frac{6x+1}{5}$

d. $f(x) = -3x + 4$

e. $f(x) = \frac{1}{2}(x+7)^2 + 3$

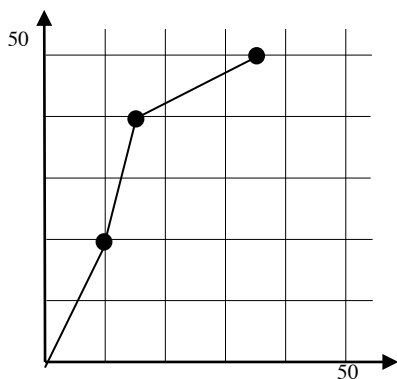
f. $f(x) = -\frac{4}{5}x + 11$

g. $f(x) = -\frac{1}{3}x^2$

2. Determine if each of the following pairs of functions are indeed inverses of each other. Show your work to justify your conclusion.

$$f(x) = 3x + 4 \text{ and } f^{-1}(x) = -4x - 3$$

3. Sketch a graph for the inverse of this function with a colored pen/pencil.



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