Homework 5

(due March 2)
Math 130 *Kovitz* 2020

1. In each case decide whether the function f with the given rule is even, odd, or neither. Prove your answer.

   (a) $f(x) = 2x^2 - 7x$

   (b) $f(x) = 6x^4 + x^2$

   (c) $f(x) = \dfrac{5 + x^4}{x}$

2. Which, if any, of the following are true statements about $y^4 = x^4$?

   (a) Its graph is symmetric with respect to the x-axis.

   (b) Its graph is symmetric with to the y-axis.

   (c) Its graph is symmetric with respect to the origin.

   (d) Its graph is symmetric with respect to the line $y = x$.

   (e) It is an odd function.

   (f) It is an even function.

*3. (a) Find a function that is symmetric to the x-axis.

   (b) Find a function that is both even and odd.