*Review 3.1*

1. Each of the following graphs is a family member of one of the basic functions.

 Determine the basic function in each case.

 a. b.

  

2. Determine algebraically whether each of the following functions is even, odd, or neither.

 Confirm your answer graphically.

 a. $f(x)= -3x^{3} - 5x$ b. $f(x)=x^{2}-4 $ c. $f\left(x\right)=x^{2}+ x-4 $

3. Use the graph of the function to answer the following.

 a. Find the domain and range.

 b. Determine the increasing intervals.

 c. State any relative minima in ordered pair form.

 d. State relative maxima in ordered pair form.

 e. Determine the zeros, if any exist.



4. Use your grapher to find the zeros of $f(x)=-x^{3}- 4x^{2}+ 6$. Provide your graph and

 round any non-integer values to three decimal places.