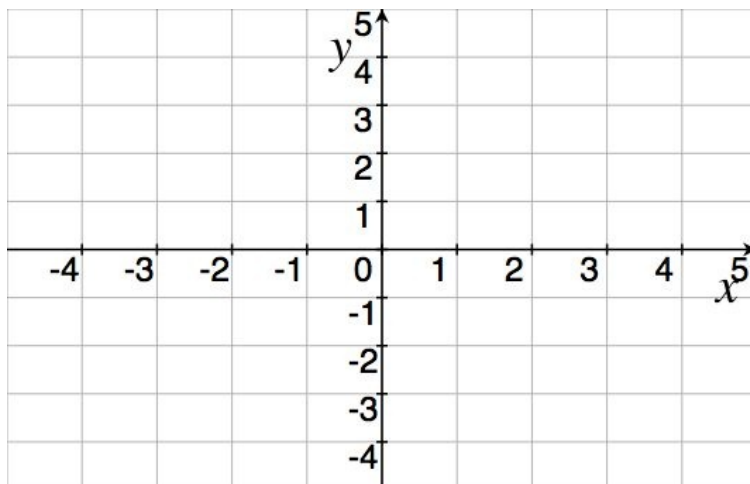# Quiz 3

Show *all* your work. No credit is given without reasonable supporting work. There are *two* sides to this quiz.
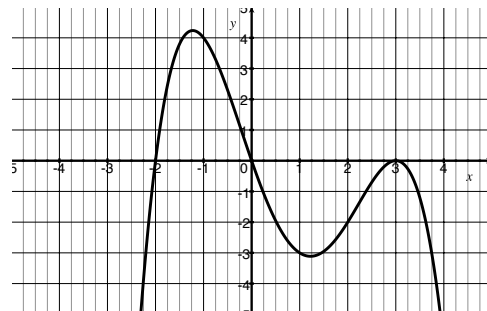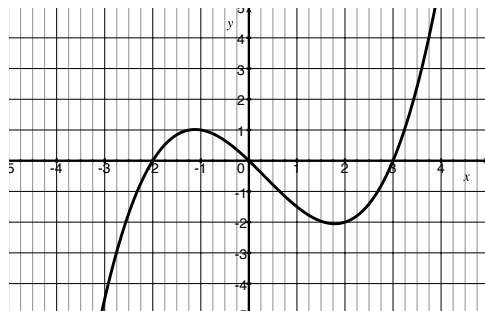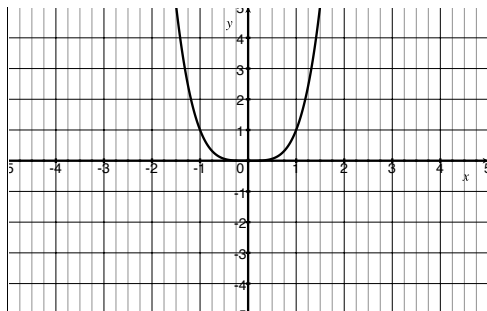
1. (WebHW8 #4) Let $p(x) = 2x^2 - 8x - 1$

   (a) [1] Find the vertex of p

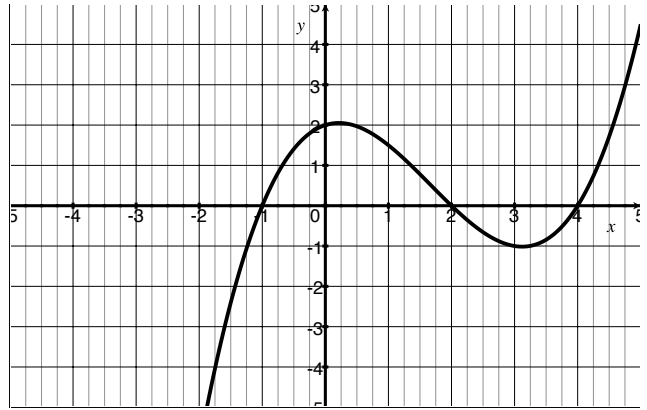   (b) [2] Graph p on the axes provided.

2. [2] (PolynomialWks#6) Identify which of the graphs below could be the graphs of a 4th degree polynomial.

3. [1] Provide an example of a fifth degree polynomial.

4. Consider the function f graphed to the right.

   (a) [1] (WebHW9 #9) True or False:
       The leading coefficient
       of f is negative.

   (b) [3] (§2.3 #28) Assume when f
       is completely factored, each real
       zero corresponds to a factor of
       the form $(x - c)^m$.
       Find the equation of least degree for f.