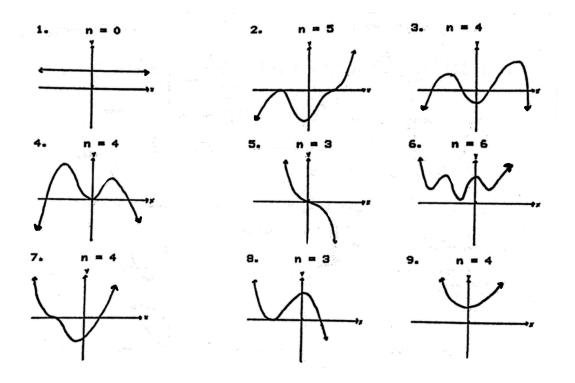
Name: \_\_\_\_\_\_ PCH: Graphs of Polynomials Date: \_\_\_\_\_ Ms. Loughran

Do Now:

- 1. For each of the following graphs, given the degree of the polynomial, determine: (a) the number of distinct real zeros.
  - (b) the multiplicity of any real zeros.
  - (c) the number of non-real zeros.



- 2. It is possible for a cubic polynomial with real coefficients to have all non-real zeros? To have exactly 2 non-real zeros?
- 3. Make a sketch of a 5<sup>th</sup> degree polynomial which has 1 real zero of multiplicity 3 and 2 non-real zeros.