Name:
PCH: Graphs of Polynomials

Date: $\qquad$
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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. 



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 $5^{\text {th }}$ degree polynomial which has 1 real zero of multiplicity 3 and 2 non-real zeros.

