Relating graphs to zeros and the equation of the polynomial, including end behavior.

***O***dd degree ends go ***o***pposite directions.

***E***ven degree ends go sam***e*** direction.

Positive leading coefficient right arm goes up.

Negative coefficient right arm goes down.

Least degree = U-turns plus one.

Zeros are also: solutions, x-intercepts, and roots.

Factors and zeros are opposite signs.

Even bounce is a U-turn ***on*** the x-axis. Even bounce means more than one zero at that point. An even multiplicity.

Odd bounce is a ***bump*** on the x-axis. Odd bounce means more than one zero at that point. An odd multiplicity.

Multiplicity- more than one zero at that point.

Factors are written as:  or 

Zeros are written as: x = # or f (#)=0