A) A biconditional:

1) If f(c)=0, then x-c is a factor of f(x)
2) If x-c is a factor of f(x) then f(c) =0

Use: If you find a zero, can be divided out to create a simpler polynomial for further study.

B) The degree of the polynomials tells you the maximum number of real zeros.
Use: You know when to stop.

C) IF A POLYNOMIAL FUNCTION HAS INTEGER COEFFICENTS
then make two lists:
1) factor the constant (call these p's)
2) factor the leading coefficient (call these q's)
3) make all the +/- fractions you can putting the p's/q's
ALL YOU REAL RATIONAL ZEROS ARE IN THIS LIST.

Use: It gives you all the possibilities.
- A useful list
- A guide on window size

D) IF THE LEADING COEFFICIENT OF A POLYNOMIAL IS 1
then all the zeros are between
-M to +M where M is
The smaller of
o The sum of the absolute value of the coefficients
and
o 1 + the coefficient with the biggest absolute value

Use: You know how big a window to set on the calculator.

E) End behavior and turning points are still useful.

F) Intermediate value theorem to find irrationals.