**Solving Polynomial Equations by Factoring:**

1.) Equation must = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & write in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form.

\*Standard Form = Exponents in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Order

2.) Factor using the appropriate method.

\*Remember to start by taking out a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ if possible.

3.) \_\_\_\_\_\_\_\_\_\_\_\_ each factor = 0 and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ says that if a polynomial equals zero, then the factors of the polynomial equal zero.**

\*The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ exponent in the problem, called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, should \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the number of solutions you get.

**Example: Solve by factoring.**

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| 1.)  | 2.) |
| 3.)  | 4.)  |