**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.**

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