**Unit 1 Review Sheet- Polynomials & Complex Numbers**

In this unit, the **VERB** you will saw most was **SIMPLIFY**. Think about how we simplified polynomials, radicals, & complex numbers and solved radical equations. As you complete each problem, check off each box to ensure you have simplified or solved correctly and completely.

* + Did you expand out all polynomial products and combine like terms?
  + Did you write the expression as a binomial, trinomial, etc.?
  + Did you pay attention to what root you are taking (square, cubic, etc.) and rewrite the radicand accordingly?
  + Did you apply your knowledge of polynomials to the powers of *i* and reduce?
  + Are all powers of *i* reduced? (You cannot leave an *i* raised to any power other than 1)
  + Are you solving a radical equation the same way you would any other equation?
  + Did you isolate the radical before squaring both sides in a radical equation?

1. Simplify the expression .
2. Given each expression, write each in simplest form:
   1. b.
3. Write  in simplest  form.
4. The expression  is equivalent to

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

1. Write a trinomial that is equivalent to .
2. Determine the solution set for each equation below
   1. b.
3. Determine, in simplest form, an expression for each:
   1. b.