Section 7.3a Factoring Trinomials of the Form

# Objective 1: Factoring Trinomials of the Form (Where

When the leading coefficient, , is not equal to one, we will use one of two methods to factor the expression. The first is trial and error. Trial and error can be an efficient choice when and do not have many factor pairs.

Factor each trinomial.

|  |  |
| --- | --- |
| a. | b. |

Another method that can be used is factoring by grouping by first rewriting the trinomial as a four-term polynomial. This method is sometimes referred to as splitting the linear term.

**Steps For Factoring a Trinomial of the Form by Grouping:**

**Step 1:** Find two numbers that have a product of and a sum of .

**Step 2:** Write the term as a sum using the numbers found in Step 1.

**Step 3**: Factor by grouping.

Factor each trinomial.

|  |  |
| --- | --- |
| c. | d. |

# Objective 2: Factoring Out the Greatest Common Factor

When factoring remember to always look for a greatest common factor first.

e. Factor the trinomial.