Notes: 3.5 Algebra Tiles

Polynomials of the form x2 + bx + c

* Each large square has a length of x units and a width of x units
* Each rectangle has a length of x units and a width of 1 unit
* Each small square has a length of 1 unit and a width of 1 unit

x 1 1 -x -1 -1

 1 -1

x x -x -x

To Factor polynomials of the form x2 + bx + c (ex. x2 + 6x + 8), shape your tiles into a perfect rectangle.

When multiplying:

1st: Set up the dimensions of the rectangle by placing the terms of one factor along the TOP

2nd: Place the other factor along the LEFT side

3rd: Complete the rectangle

4th: Solve

Ex. #3 Expand: (5*e* + 3)(2*e* + 4)

 Solve using distributive property



Complete the following table:

|  |  |  |
| --- | --- | --- |
| **FACTORS** | **TILE MODEL** | **SOLVE****Check your answer!** |
| (2x+1)(x+1) |  | \*use distributive property |
| (x-1)(-4x+1) |  |  |
| (2x+1)(x-2) |  |  |
| (x-3)(-x-1) |  |  |