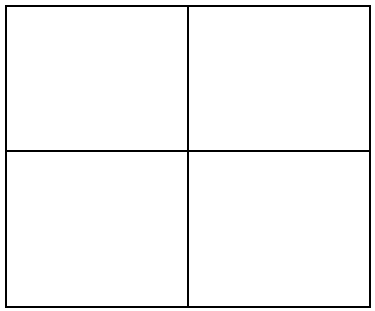
Factoring Quadratics

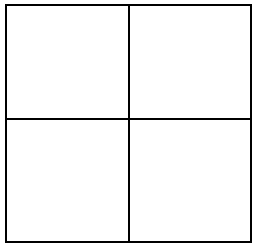
$14x^2 - 12x - 2 =$ (____)(____)



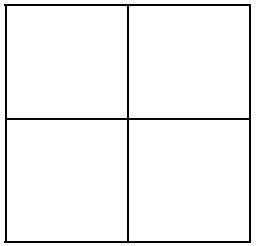
How to Factor

- Check to see if you can factor out a GCF.
- Write the squared term in the top left box.
- Write the constant in the bottom right box.
- The missing diagonal sums to the middle term.
- The missing diagonal multiplies to the product of the other diagonal.
- Find the missing diagonal.
- Determine what was multiplied to form the four boxes.
- Rewrite with parentheses.

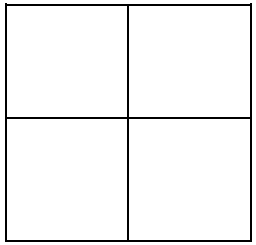
$9x^2 - 6x - 15 =$ ( )( )



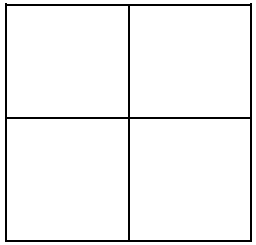
$2x^2 + 11x + 5=$ ( )( )



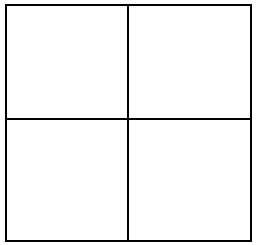
$2x^2 + 3x - 9 =$ ( )( )



$10x^2 + 80x + 70=$ ( )( )



$3x^2 - 8x + 4=$ ( )( )



$x^2-16=$ ( )( )