

1/16/13 Factoring  $ax^2+bx+c$ 

Factor

Example

①  $x^2 - 10xy - 11y^2$

$$\begin{array}{r} -11 \\ \frac{-11y}{x} \quad \frac{1y}{x} \\ -10 \end{array}$$

$$(x-11y)(x+y)$$

②  $6x^2 + 13x - 5$

$$\begin{array}{r} -30 \\ \frac{-1}{3x} \quad \frac{-2 \div 2}{10x \div 2} \quad \frac{15 \div 3}{6x \div 3} \quad \frac{5}{2x} \\ 13 \end{array}$$

$$(3x-1)(2x+5)$$

③  $2x^2 + 3x - 20$

$$\begin{array}{r} -40 \\ \frac{-5}{2x} \quad \frac{8 \div 2}{2x \div 2} \quad \frac{4}{x} \\ 3 \end{array}$$

$$(2x-5)(x+4)$$

④  $2x^2 - 11x - 21$

$$\begin{array}{r} -42 \\ \frac{3}{2x} \quad \frac{-14 \div 2}{2x \div 2} \quad \frac{-7}{x} \\ -11 \end{array}$$

$$(2x+3)(x-7)$$

⑤  $2x^2 - 11xy - 3y^2$

$$\begin{array}{r} -6 \\ \frac{-3y}{2x} \quad \frac{2y}{2x} \quad \frac{1}{x} \\ -1 \end{array}$$

$$(2x-3y)(x+y)$$

⑥  $x^2 - 5xy + 6y^2$

$$\begin{array}{r} 6 \\ \frac{-3y}{x} \quad \frac{-2y}{x} \\ -5 \end{array}$$

$$(x-3y)(x-2y)$$