

p. 230 # 13  
factor

$$y^2 + 15y + 36$$

$$(y + 3)(y + 12)$$

$$m + n = 15$$

$$m \cdot n = 36$$

factors of 36

1	36
2	18
3	12
4	9
6	6

#22

$$x^2 - 2x$$

$$x(x - 2)$$

GCF:  $x$   
un-distribute!

#25

$$27p^2 - 9p + 18$$

GCF: 9

$$9(3p^2 - p + 2)$$

factoring quadratic trinomials:  
when  $|a| > 1$

p. 230 #24

factor  $14y^2 + 7y - 21$

GCF = 7  $7(2y^2 + y - 3)$

factor  $2y^2 + y - 3$

$$m+n=1$$

$$m \cdot n = -6$$

$$a \cdot c = 2 \cdot (-3) =$$

$$m = -2$$

$$n = 3$$

$$2y^2 - 2y + 3y - 3$$

$$2y(y-1) + 3(y-1)$$

$$\boxed{7(2y+3)(y-1)}$$

p. 234 #8

factor  $3x^2 + 31x + 36$

(no GCF)  


$$m+n=31$$

$$m \cdot n = 108$$

$$\begin{aligned} a \cdot c \\ = 3 \cdot 36 \\ = 108 \end{aligned}$$

$$2y(y-1) + 3(y-1)$$

$$\text{let } x = y-1$$

$$2y \cdot x + 3 \cdot x$$

$$x(2y+3)$$

$$(y-1)(2y+3)$$