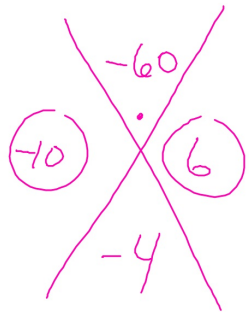


factor

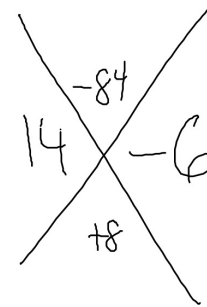
$$5h^2 - 4h - 12 = (5h+6)(h-2)$$



5h	$5h^2$	$-10h$
$+6$	$6h$	-12

Factor.

$$28n^2 + 8n - 3 = (2n+1)(14n-3)$$



	$2n + 1$	
$14n$	$28n^2$	$14n$
-3	$-6n$	-3

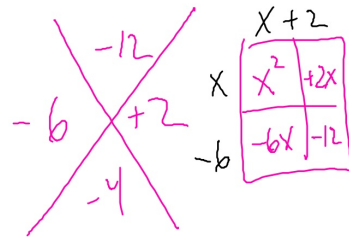
Factor. First, look at the three terms.

What do you notice?

GCF $5x^2 - 20x - 60$

$$5(x^2 - 4x - 12)$$

$$5(x+2)(x-6)$$



Steps when factoring:

1. Always look for GCF first.
2. After GCF (if there is one):
 - a. If there are two terms check to see if parentheses is the difference of perfect squares.
 - or
 - b. If there are three terms factor using the diamond and the box.

factor

$$-18g^2 - 3g + 45 = -3(2g-3)(3g+5)$$

$$-3(6g^2 + g - 15)$$

$$\begin{array}{c} 10 \quad -90 \\ \quad -9 \\ 1 \end{array} \rightarrow \begin{array}{c} 2g \quad -3 \\ 3g \quad +5 \end{array} \begin{array}{|c|c|} \hline 6g^2 & -9g \\ \hline 10g & -15 \\ \hline \end{array}$$

factor

$$24k^3 - 42k^2 + 15k = 3k(2k-1)(4k-3)$$

GCF 3k

$$3k(8k^2 - 14k + 5)$$

$$\begin{array}{c} 40 \\ -10 \quad -4 \\ -11 \end{array} \rightarrow \begin{array}{c} 2k \quad -1 \\ 4k \quad -5 \end{array} \begin{array}{|c|c|} \hline 8k^2 & -4k \\ \hline -10k & +5 \\ \hline \end{array}$$

factor

$$-6w^2 - 23w + 18 = -1(3w-2)(2w+9)$$

$$\text{GCF} = -1$$

$$-1(6w^2 + 23w - 18) \begin{array}{c} 3w \quad -2 \\ 2w \quad 9 \end{array} \begin{array}{|c|c|} \hline 6w^2 & -4w \\ \hline 27w & -18 \\ \hline \end{array}$$

$$\begin{array}{c} -108 \\ 24 \quad -4 \\ +23 \end{array}$$

Hwk #31

Sec 9-6

Pages 487-488

Problems 6, 12, 18, 25, 26, 36,

Factor.

$$ax^2 + bx + c$$

$$x^2 - 49 = (x + 7)(x - 7)$$

Factor.

$$1x^2 + 9x + 14 = (x + 2)(x + 7)$$

Factor.

$$x^2 - 12x + 20 = (x - 10)(x - 2)$$

Factor.

$$x^2 - 3x - 40$$

Factor.

$$x^2 + x - 30 = (x+6)(x-5)$$

