Factor completely.

3. $8m^2 - 12m - 108$ $4(2m^2-3m-27)$

-54, -9, 6, -3

	m	3
2m	$2m^2$	6m
-9	-9m	-27

$4(2m-9)(m+3)$

4. $2w^3 - 18w^2 - 72w$

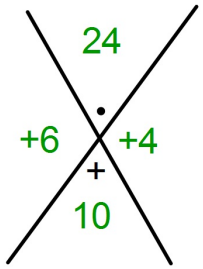
$2w(w^2-9w-36)$

-36, -12, 3, -9

$2w(w-12)(w+3)$

$x^2 + 10x + 24 = (x+6)(x+4)$

Look at the "X" then look at the factors, what do you notice?



This always happens when the leading coefficient is 1

In the future when the leading coefficient is 1 you can skip the "Box" and go straight from the "X" to the Factors.

Factor completely: $x^2 + 14x + 33$

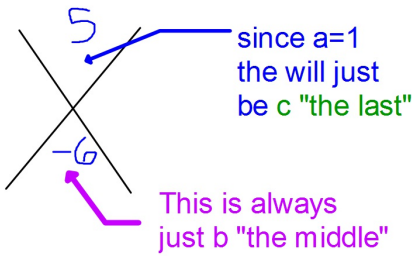
Because a=1 you can skip the "BOX".

$(x+11)(x+3)$

Factor completely: $x^2 - 6x + 5$

because a=1 you can skip the box.

because a=1 you may also be able to skip the X



$x^2 - 6x + 5$

since a=1 these will always just be the variables

$= (x \quad -5)(x \quad -1)$

To find these just ask yourself:
"what multiple to the last
and adds to the middle"

factor each:

1. $y^2 - 14y + 48$

$(y-6)(y-8)$

2. $c^2 + 7c + 12$

$(c+3)(c+4)$

factor each:

3. $j^2 - 4j - 21$

$(j+3)(j-7)$

4. $y^2 + 14y + 40$

$(y+4)(y+10)$

You can now finish Hwk #21 Sec 9-5

Pages 483-484

Problems 10, 15, 25, 26, 33, 34, 46, 47, 57

Due Monday

Factor completely.

$h^2 - 4$

Factoring the Difference of Perfect Squares:

$a^2 - b^2 = (a + b)(a - b)$

$(h+2)(h-2)$

Factor completely.

1. $\sqrt{25h^2} - \sqrt{49}$

$(5h+7)(5h-7)$

2. $300g^2 - 27$

GCF = 3

$3(100g^2 - 9)$

$3(10g+3)(10g-3)$

Take one of the orange ActivExpressions

2. What is the degree of this polynomial?

$-m^5 + 4m^3 - 24m^2 - 6m + 3$

5

3. What is the degree of this monomial?

$18a^4b^5c^1$

9

4. Name this polynomial by its degree: $9n^2 - 4n + 1$

A. Trinomial
B. Linear
C. Quadratic
D. Cubic
E. Monomial

5. Name this polynomial by the number of terms.

$7c^3$

A. Cubic
B. Constant
C. Trinomial
D. Monomial
E. Quadratic

6. Name this polynomial by its degree.

8-7q

A. Linear
B. Binomial
C. Constant
D. Monomial
E. Quadratic

7. Name this polynomial by the number of terms.

$4 + 8c^3 - 7c$

A. Monomial
B. Quadratic
C. Cubic
D. Binomial
E. Trinomial

8. Name this polynomial by its degree.

-12.5

A. Monomial
B. Linear
C. Binomial
D. Constant
E. Triomial

factor.

$64a^2b^5c - 48ab^7c^3 + 80a^4b^2c^8$

$16abc(4ab^3 - 3b^5c^2 + 5a^3c^7)$

Expand each.

1. (Q - 13)(Q + 10)

$Q^2 - 3Q - 130$

$Q \cdot Q$ $\quad -13+10$ $\quad (-13)(10)$

2. (3H - 4)(5H + 7)

$= 15H^2 - H - 28$

	5H	+7
3H	$15H^2$	+21H
−4	−20H	−28