Factor Completely.

$96a^4 - 224a^3 - 40a^2$

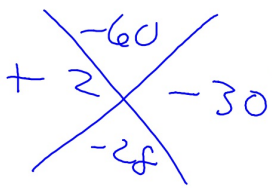
4th: Write answer in factored form

$8a^2(6a+1)(2a-5)$

1st take out GCF

$8a^2(12a^2 - 28a - 5)$

2nd: The X



3rd: The Box

	6a	+1
2a	$12a^2$	+2a
-5	-30a	-5

Factor Completely.

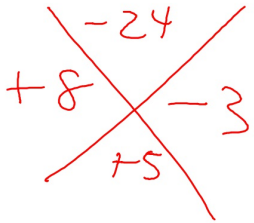
$m^2 + 5m - 24$

Answer in factored form

$(m+8)(m-3)$

1st: No GCF

2nd: The X



3rd: The Box

	m	+8
m	m^2	+8m
-3	-3m	-24

Factoring $ax^2 + bx + c$ when a = 1

$w^2 + 2w - 80$

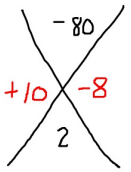
what step(s) can you skip?

a. You can skip the box because the numers you get from the X become the constants in your factors

b. You might be able to skip the X too because the #'s you originally put at the top and bottom of the X are just c at the top and b at the bottom. To find the numbers needed for the factors when a=1 we need to answer the question: What #'s multipy to the last and add to the middle.

1. No GCF.

2. The X.



3. The Box.

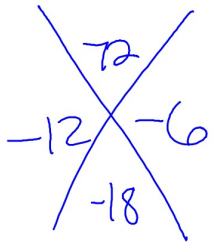
	w	+10
w	w^2	10w
-8	-8w	-80

4. Factored Form

$(w+10)(w-8)$

Factor Completely.

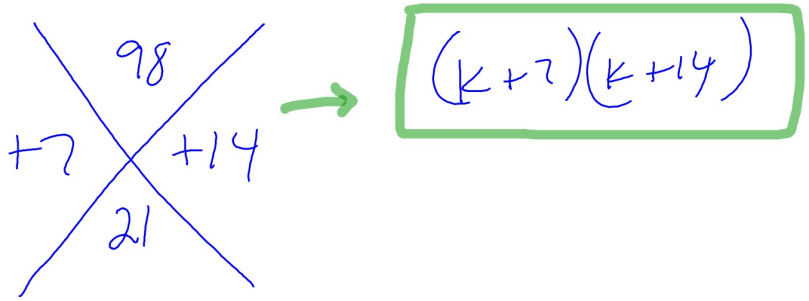
$c^2 - 18c + 72$



$(c-12)(c-6)$

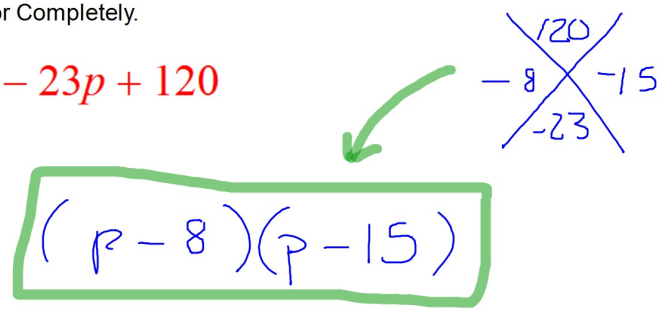
Factor Completely.

$k^2 + 21k + 98$



Factor Completely.

$p^2 - 23p + 120$



You can now finish Hwk #9 Sec 5-4

Page 263

Problems 18, 23, 26, 33, 34, 56, 58