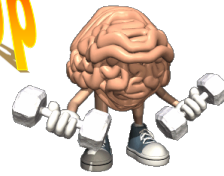


Look for

- 1) Is there a GCF?
- 2) Is it a simple trinomial?

# Warm Up



Name: \_\_\_\_\_

Factor the following:

1)  $n^2 + 7n - 30$

Simple

sign on largest

diff

last mult	add
$-30$	$+7$
$-1x+30$	
$-2x+15$	
$-3x+10$	
$-5x+6$	

$(n-3)(n+10)$

G C F

2)  $-80k^4 + 10k^2$

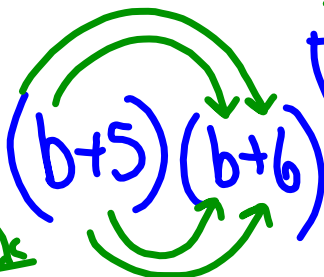
$10k^2(-8k^2+1)$

3)  $b^2 + 11b + 30$

Sign on largest

same

last mult	middle add
$+30$	$+11$
$+1x+30$	
$+2x+15$	
$+3x+10$	
$+5x+6$	



$$b^2 + 6b + 5b + 30$$

$$b^2 + 11b + 30$$

4)  $-5x^2 + 40x - 35$

$-5(x^2 - 8x + 7)$

simple??

last mult	middle add
$+7$	$-8$
$-1x-7$	

$-5(x-1)(x-7)$

Factor Each of the following:  
(Finished For homework)

1. $x^2 - 14x + 45$	$(x-9)(x-5)$	2. $x^2 + 17x + 60$	$(x+5)(x+12)$
3. $x^2 - 18x + 80$	$(x-8)(x-10)$	4. $x^2 - 10x + 16$	$(x-8)(x-2)$
5. $x^2 - 6x + 9$	$(x-3)(x-3)$	6. $x^2 - 7x + 6$	$(x-6)(x-1)$
7. $x^2 + 20x + 99$	$(x+11)(x+9)$	8. $x^2 + 3x - 18$	$(x-3)(x+6)$
9. $x^2 - 3x - 88$	$(x+8)(x-11)$	10. $x^2 - 16x + 48$	$(x-12)(x-4)$
11. $x^2 + 11x + 30$	$(x+6)(x+5)$	12. $x^2 - 14x + 33$	$(x-11)(x-3)$
13. $x^2 + x - 30$	$(x+6)(x-5)$	14. $x^2 - 3x - 70$	$(x-10)(x+7)$
15. $x^2 + 8x - 9$	$(x+9)(x-1)$	16. $x^2 - 16x + 55$	$(x-5)(x-11)$
17. $x^2 + 6x - 72$	$(x-6)(x+12)$	18. $x^2 + 5x - 50$	$(x+10)(x-5)$
19. $x^2 + 10x + 24$	$(x+6)(x+4)$	20. $x^2 + 6x - 16$	$(x+8)(x-2)$

Simple

$$|x^2 + 1x - 30$$

↓  
sign on largest

↓  
diff

last mult	middle add
-30	+1
-1 x + 30	
-2 x + 15	
-3 x + 10	
<b>-5 x + 6</b>	

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

$$x^2 - 10x + 16$$

↓ sign on largest  
same

$$(x-2)(x-8)$$

Check

$$x^2 - 8x - 2x + 16$$

$$x^2 - 10x + 16 \quad \checkmark$$

Last mult	middle add
+16	-10
-1 x-16	
<span style="border: 1px solid green; padding: 2px;">-2 x-8</span>	
-4 x-4	

When working with Factoring trinomials

-Always check for GCF first

$$n^3 - 4n^2 - 21n$$

$$n (n^2 - 4n - 21)$$

Simple

$$n (n+3)(n-7)$$

last mult	middle add
-21	-4
+ 1 x -21	
+ 3 x -7	

$$2n^2 - 14n + 24$$

$$3r^3 + 24r^2 + 45r$$

$$1) \quad x^2 + 12x - 28$$

$$2) \quad 7c^2 - 35c + 42$$



# Homework

Short Quiz ~~Tuesday~~ Wed

- Page 166

Questions: 10, 13, 15ab, 19, 20 and 21ce

- Once done work on yesterday's sheet  
(10 you did not get done)