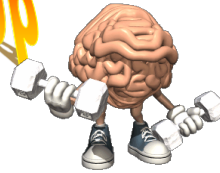


Look for

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

# Warm Up



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

Factor the following:

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

Sign ↑  
largest factor  
diff ↓

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

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

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

GCF

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

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

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

largest ↓  
same ↑

$(b+5)(b+6)$

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

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

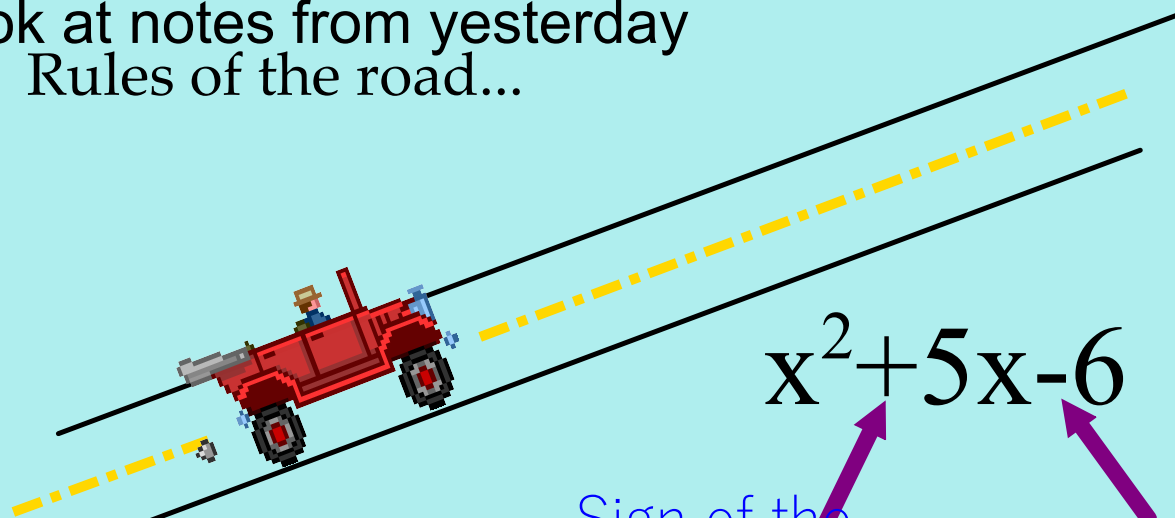
$-5(x^2 - 8x + 7)$

same ↓  
simple trinomial

mul	add
+7	-8
+1 x -7	
-1 x -7	

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

Look at notes from yesterday  
Rules of the road...



$x^2 - 5x + 6$

*Sign of the biggest number.*

*Signs are the same.*

$x^2 + 5x - 6$

*Sign of the biggest number.*

*Signs are different.*

Always check if a GCF can be factored

$$2x^2 - 20x + 42$$

↗ sign are the same

$$2(x^2 - 10x + 21)$$

Simple trinomial

Sign on largest

$$2(x-3)(x-7)$$

last      middle
mult    {    add
+21      -10
-1 x 21
-3 x -7

NEW notes for today

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

↑ largest  
diff

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

mult	add
-1 x 30	
-2 x 15	
-3 x 10	
5 x 6	

When working with Factoring trinomials

-Always check for GCF first

$$n^3 - 4n^2 - 21n \quad \text{diff}$$

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

largest

Simple trinomial

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

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

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

$$2(n-3)(n-4)$$

# Homework

Short Quiz Tuesday

Finish Worksheet first column

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