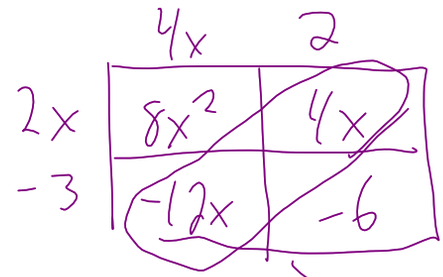
Bell Work:



Simplify

$(4x+2)(2x-3)$

$4x(2x)+4x(-3)+2(2x)+2(-3)$

$8x^2-12x+4x-6$

$8x^2-8x-6$

Simplify — tells how many to write the ( )

1) $(x+7)^2$

$(x+7)(x+7)$

$x(x+7)+7(x+7)$

$x^2+7x+7x+49$

×	x	7
x	x^2	$7x$
7	$7x$	49

$x^2+14x+49$

$(x)(x)+x(7)+7(x)+7(7)$

$x^2+7x+7x+49$

$x^2+14x+49$

(2) $(3x-1)^2$

$(3x-1)(3x-1)$

$3x(3x)+3x(-1)-1(3x)-1(-1)$

$9x^2-3x-3x+1$

$9x^2-6x+1$

- when multiplying a binomial by itself, the two middle terms will be the same

Your Turn

3) $(6m+2)^2 \rightarrow (6m+2)(6m+2)$

Distributive

$6m(6m+2)+2(6m+2)$

Table

	6m	2
6m		
2		

FOIL

$6m(6m)+6m(2)+2(6m)+2(2)$

$36m^2+12m+12m+4$

$36m^2+24m+4$

Simplify

4) $(b+2)(b-2)$

$b(b-2)+2(b-2)$

$b^2-2b+2b-4$

b^2-4

(5) $(2c+3)(2c-3)$

	$2c$	3
$2c$	$4c^2$	$6c$
-3	$-6c$	-9

Add

$4c^2-9$

Your turn

6) $(3x-5)(3x+5)$

$3x(3x)+3x(5)-5(3x)-5(5)$

$9x^2 \cancel{+15x-15x} -25$

$9x^2-25$