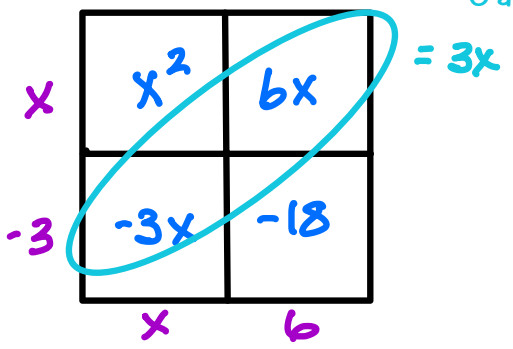
Name: _____ Block: _____ Date: _____

Factor the following expressions completely. (Remember to take out a greatest common factor first, if possible.)

1. $x^2 + 3x - 18$

$x^2+6x-3x-18$

Factors of -18
sum = 3
6 and -3

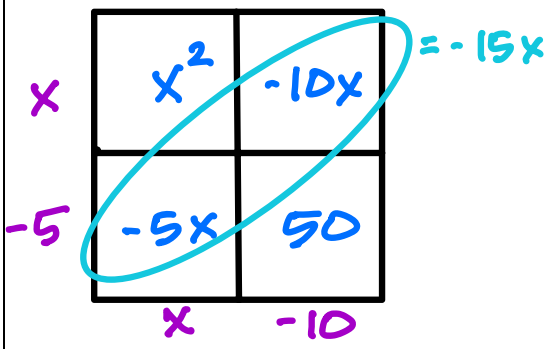


$(x+6)(x-3)$

2. $x^2 - 15x + 50$

$x^2-10x-5x+50$

Factors of 50
sum = -15
-10 and -5

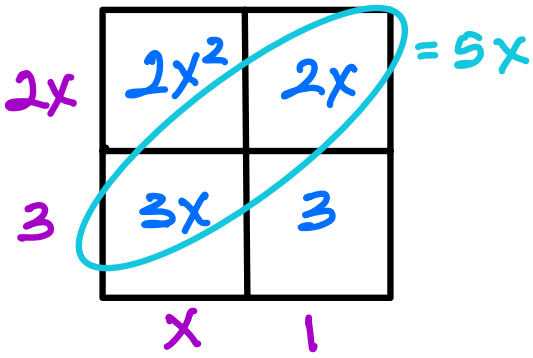


$(x-5)(x-10)$

3. $2x^2 + 5x + 3$

$2x^2+2x+3x+3$

Factors of 6
sum = 5
2 and 3

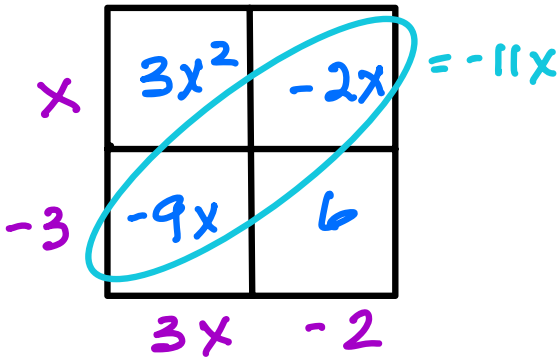


$(2x+3)(x+1)$

4. $3x^2 - 11x + 6$

$3x^2-9x-2x+6$

Factors of 18
sum = -11
-2 and -9

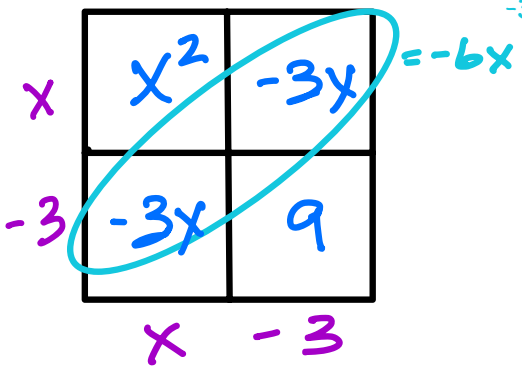


$(x-3)(3x-2)$

5. $x^2 - 6x + 9$

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

Factors of 9
sum = -6
-3 and -3

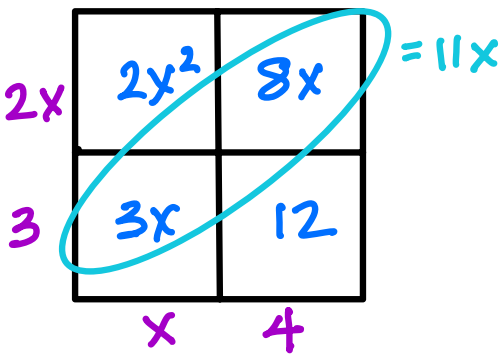


$(x-3)(x-3)$

6. $2x^2 + 11x + 12$

$2x^2+8x+3x+12$

Factors of 24
sum = 11
3 and 8

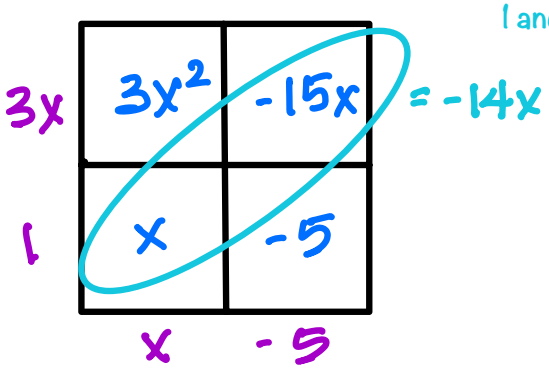


$(2x+3)(x+4)$

7. $3x^2 - 14x - 5$

$3x^2 - 15x + x - 5$

Factors of -15
sum = -14
1 and -15

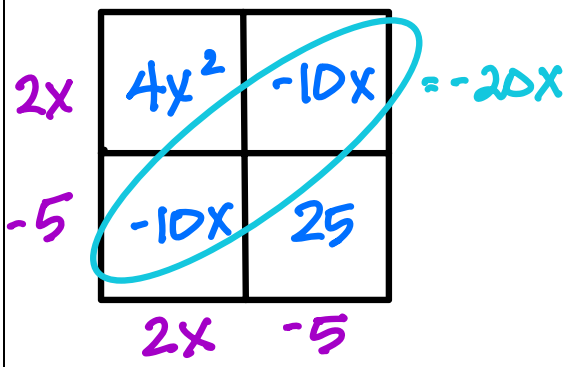


$(3x+1)(x-5)$

8. $4x^2 - 20x + 25$

$4x^2 - 10x - 10x + 25$

Factors of 100
sum = -20
-10 and -10

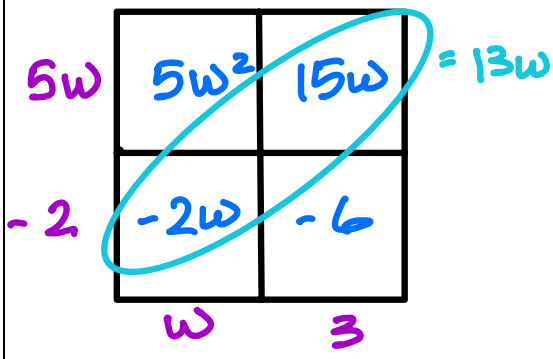


$(2x-5)(2x-5)$

9. $5w^2 + 13w - 6$

$5w^2 + 15w - 2w - 6$

Factors of -30
sum = 13
-2 and 15

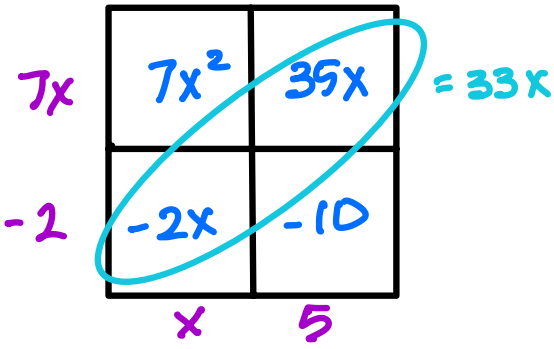


$(5w-2)(w+3)$

10. $7x^2 + 33x - 10$

$7x^2 + 35x - 2x - 10$

Factors of -70
sum = 33
-2 and 35

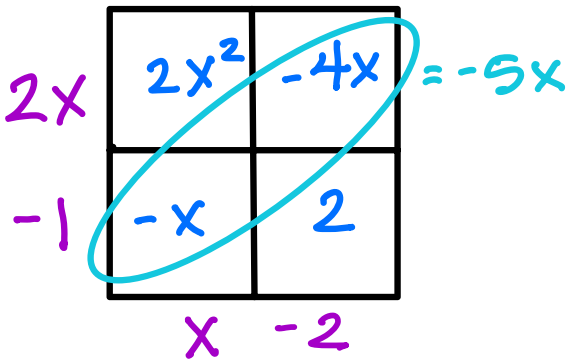


$(7x-2)(x+5)$

11. $6x^2 - 15x + 6$

$3(2x^2 - 5x + 2)$
$3(2x^2 - 4x - x + 2)$

Factors of 4
sum = -5
-1 and -4

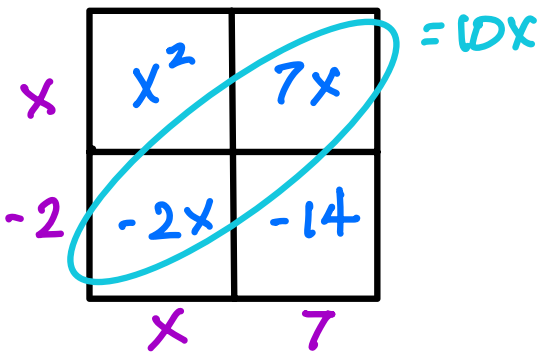


$3(2x-1)(x-2)$

12. $2x^2 + 10x - 28$

$2(x^2 + 5x - 14)$
$2(x^2 + 7x - 2x - 14)$

Factors of -14
sum = 5
-2 and 7



$2(x-2)(x+7)$