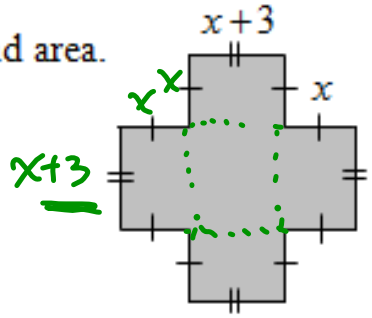
9. Find area.




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

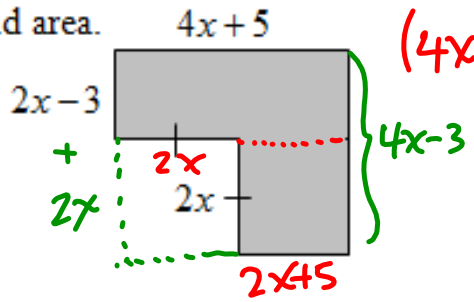
$= 4x(x+3) + (x+3)^2$

$= 4x^2 + 12x + (x+3)(x+3)$

$= 4x^2 + 12x + x^2 + 6x + 9$

$= 5x^2 + 18x + 9$

8. Find area.




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

$(4x+5)(4x-3)-(2x)^2 = 12x^2+8x-15$

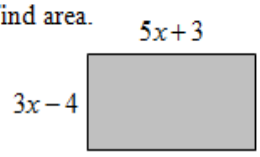
$(2x)(2x)=4x^2$

#9 #5 #7

#4 #8 #2

#3 #1 #6

7. Find area.



6. $-3.4m^2+30.6$ GCF $=-3.4$

$=-3.4(m^2-9)$

$=-3.4(m+3)(m-3)$ ✓

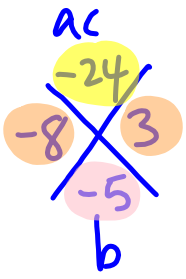
| $m^2$ | $-9$ |
|---|---|
| $m$ | $3$ |
| $m$ | $-3$ |
| | $0$ |

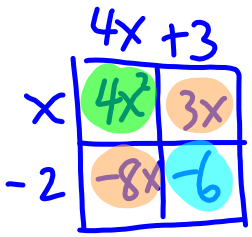
$a^2-b^2=(a+b)(a-b)$

9. $4x^2 - 5x - 6$

$a = 4,\ b = -5,\ c = -6$

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




When c is negative, you are looking for two factors that multiply to c but subtract to get to b without looking at the sign. Then pick the bigger factor to assign the sign of b.

1 x 24
2 x 12
3 x -8
4 x 6

Since c is negative, we are finding 2 numbers that multiply to 24 but subtract to 5.
It is 3 and 8 as 8 - 3 = 5.
Since c is negative,one of the number must be negative too.
Since b is negative, the bigger number 8 should be negative.
So, 3 x -8 is -24 which is c, and -8 + 3 is -5 which is b.