

key

F.O.I.L METHOD

$(12t-5)(12t+5)$	
F	$(12t)(12t) = 144t^2$
O	$(12t)(5) = 60t$
I	$(-5)(12t) = -60t$
L	$(-5)(5) = -25$
Answer: $144t^2 - 25$	

0t.

$(x+5)(x+2)$	
F	$(x)(x) = x^2$
O	$(x)(2) = 2x$
I	$(5)(x) = 5x$
L	$(5)(2) = 10$
Answer: $x^2 + 7x + 10$	

7x

$(y-2)(y+4)$	
F	$(y)(y) = y^2$
O	$(y)(4) = 4y$
I	$(-2)(y) = -2y$
L	$(-2)(4) = -8$
Answer: $y^2 + 2y - 8$	

2y

$(8h-1)(2h-3)$	
F	$(8h)(2h) = 16h^2$
O	$(8h)(-3) = -24h$
I	$(-1)(2h) = -2h$
L	$(-1)(-3) = 3$
Answer: $16h^2 - 26h + 3$	

-26h.

$(4n+3)(n+9)$	
F	$(4n)(n) = 4n^2$
O	$(4n)(9) = 36n$
I	$(3)(n) = 3n$
L	$(3)(9) = 27$
Answer: $4n^2 + 39n + 27$	

39n

$(2a+9)(5a-6)$	
F	$(2a)(5a) = 10a^2$
O	$(2a)(-6) = -12a$
I	$(9)(5a) = 45a$
L	$(9)(-6) = -54$
Answer: $10a^2 + 33a - 54$	

33a.

$(a-2)(a-2)$	
F	$(a)(a) = a^2$
O	$(a)(-2) = -2a$
I	$(-2)(a) = -2a$
L	$(-2)(-2) = 4$
Answer: $a^2 - 4a + 4$	

-4a.

$(3c+4d)(3c+4d)$	
F	$(3c)(3c) = 9c^2$
O	$(3c)(4d) = 12cd$
I	$(4d)(3c) = 12cd$
L	$(4d)(4d) = 16d^2$
Answer: $9c^2 + 24cd + 16d^2$	

24cd.

Key

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$(3c-5)(c+3)$	
F	$(3c)(c) = 3c^2$
O	$(3c)(3) = 9c$
I	$(-5)(c) = -5c$
L	$(-5)(3) = -15$
Answer: $3c^2 + 4c - 15$	

4c

$(g+10)(2g-5)$	
F	$(g)(2g) = 2g^2$
O	$(g)(-5) = -5g$
I	$(10)(2g) = 20g$
L	$(10)(-5) = -50$
Answer: $2g^2 + 15g - 50$	

15g

$(6a+5)(5a+3)$	
F	$(6a)(5a) = 30a^2$
O	$(6a)(3) = 18a$
I	$(5)(5a) = 25a$
L	$(5)(3) = 15$
Answer: $30a^2 + 43a + 15$	

43a

$(4x+1)(6x+3)$	
F	$(4x)(6x) = 24x^2$
O	$(4x)(3) = 12x$
I	$(1)(6x) = 6x$
L	$(1)(3) = 3$
Answer: $24x^2 + 18x + 3$	

18x

$(5y-4)(3y-1)$	
F	$(5y)(3y) = 15y^2$
O	$(5y)(-1) = -5y$
I	$(-4)(3y) = -12y$
L	$(-4)(-1) = 4$
Answer: $15y^2 - 17y + 4$	

-17y

$(6d-5)(4d-7)$	
F	$(6d)(4d) = 24d^2$
O	$(6d)(-7) = -42d$
I	$(-5)(4d) = -20d$
L	$(-5)(-7) = 35$
Answer: $24d^2 - 62d + 35$	

-62d

$(3m+5)(2m+3)$	
F	$(3m)(2m) = 6m^2$
O	$(3m)(3) = 9m$
I	$(5)(2m) = 10m$
L	$(5)(3) = 15$
Answer: $6m^2 + 19m + 15$	

19m

$(7n-6)(7n-6)$	
F	$(7n)(7n) = 49n^2$
O	$(7n)(-6) = -42n$
I	$(-6)(7n) = -42n$
L	$(-6)(-6) = 36$
Answer: $49n^2 - 84n + 36$	

-84n