

Algebra 2
Unit 5: Foiling and Factoring
Section 1 Notes: FOIL

Find each product.

a. $3(2x - 4)$

b. $-4(x + 2)$

c. $6x(5x - 1)$

When Multiplying a binomial times a binomial. We must distribute both terms of the first expression.

Foil is an acronym that keeps things organized when multiplying Binomials.

	$(x - 3)(2x + 5)$
F irst	$x \cdot 2x =$
O uter	$x \cdot 5 =$
I nnner	$(-3) \cdot 2x =$
L ast	$(-3) \cdot 5 =$

Final Answer:

Practice:

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

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

f. $(2x - 3)(x - 4)$

Factoring does the opposite of FOIL. Instead of expanding a polynomial it breaks it down into its smallest parts.

GCF: Greatest Common Factor

The greatest whole number that divides each term exactly, or the largest number that all the terms share.

Find the GCF of these terms.

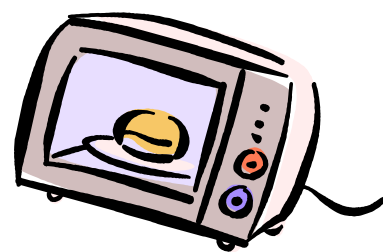
h. $8w^4$ and $5w^2$

i. $14x^2$ and -49 and $77x$

To factor out the GCF:

Write the GCF before the parentheses and write the leftovers inside the parentheses.

GCF(Leftovers)



j. $15x^2 - 5$

k. $-8x^4 - 32x^3 - 16x^2$

l. $5x^5 + 10x^4 + 15x^3$