

Name: \_\_\_\_\_ Per: \_\_\_\_\_ TARGET/Section: **8.3**

1	2	3	4	5
Blank /Beginning	Emerging	Nearly Proficient	Proficient	Mastery

Find the product:

$$6w^2 + 15w + 14w + 35$$

1.  $(3w + 7)(2w + 5)$  -- Use FOIL

$$6w^2 + 29w + 35$$

2.  $(5b - 3)(5b^2 + 3b - 2)$  -- Use double distribution

$$5b(5b^2 + 3b - 2) - 3(5b^2 + 3b - 2) \leftarrow$$

$$25b^3 - 19b + 6$$

? ? ? ? ?  
 ? Questions ?

? ? ? ? ?  
 ? On ? ? ?

? ? ? ? ?  
 ? Homework ?

? ? ? ? ?

A blue banner with a gradient background. On the left, the word "LESSON" is written vertically in white. To its right, the numbers "8-4" are written in a large, light blue font. Further right, the words "Special Products" are written in a bold, white font. A small black icon of a pencil is in the bottom right corner of the banner.

I can multiply polynomials using FOIL method.

New Target!

T8-0 Computational Fluency - I can recite the perfect squares out loud for the numbers 1-20.

# FOIL

FIRST      OUTSIDE      INSIDE      LAST

①  $(x + 2)(x - 3)$

②  $(3x + 5)(2x - 6)$

You Try!!

Use FOIL to multiply.

1.  $(n - 5)(n + 1)$

2.  $(3c^2 + 1c)(c^2 - 2c^3)$

$$(7x + 2)^2 = (7x + 2)(7x + 2)$$

★ Square a binomial  
you ALWAYS get a trinomial

Special Products - Square of a **SUM**  
**Expand, then FOIL!**

$$(7x + 2)^2$$

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

$$49x^2 + 14x + 14x + 4$$

$$49x^2 + 28x + 4$$

Special Products - Square of a **Difference**  
**Expand, then FOIL!**

$$(3c - 4)^2$$

$$(3c - 4)(3c - 4)$$

$$9c^2 - 12c - 12c + 16$$

$$9c^2 - 24c + 16$$

## You Try:

Erase for answers below:

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

2.  $(2m - 3)^2$

Product of a **SUM** and a **DIFFERENCE**

1.	$(9d + 4)(9d - 4)$	$81d^2 - 16$
2.	$(x - 7)(x + 7)$	$x^2 - 49$
3.	$(x + 2)(x - 2)$	$x^2 - 4$
4.	$(5x + 8)(5x - 8)$	$25x^2 - 64$

**You Try:**

1.  $(3y + 2)(3y - 2)$

$(3y+2)^2$

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



# Homework 8.4

8.4 pg 489 #23-47o *FOIL*

Like # 43 :

$$(x+3)(x+2)(2x-5)$$
$$(x^2+2x+3x+6)(2x-5)$$
$$(x^2+5x+6)(2x-5)$$
$$(2x-5)(x^2+5x+6)$$

**GEOMETRY** Write an expression that represents the area of a square that has a side length of  $3x + 12$  units.

Answer:

You Try:

**GEOMETRY** Write an expression that represents the area of a square that has a side length of  $(3x - 4)$  units.

Answer: