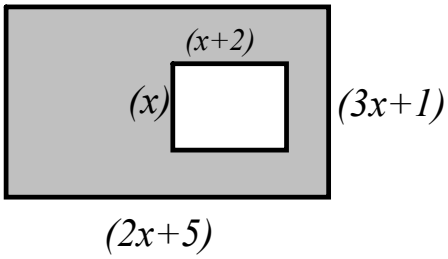
Stick Quiz

Find the products using distribution

2. $(3w + 7)(2w + 5)$

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

4. *Write an expression for the shaded area of the rectangle.*



Stick Quiz

Subtract: $-9y^2-4y+5$

1. $(2 - 6y + 3y^2) - (9y^2 + 4y - 5)$

$-6y^2-10y+7$

Find the products using distribution

2. $(3w + 7)(2w + 5)$ $=6w^2+29w+35$

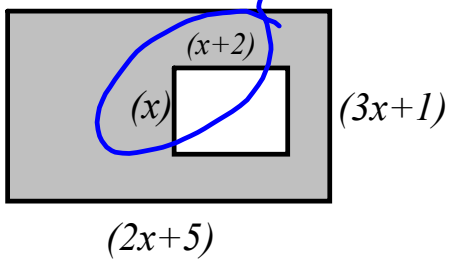
3. $(5x - 3)(5x^2 + 3x - 4)$

$25x^3-29x+12$

4. *Write an expression for the shaded area of the rectangle.*

$5x^2+15x+5$

$-(x^2+2x)$



Homework Questions

27. $(m^2-5m+4)(m^2+7m-3)$

$m^2(m^2+7m-3)$

$m^2m^2+m^2(7m)+m^2(-3)$

$-5m(m^2+7m-3)$

$-5m(m^2)-5m(7m)-5m(-3)$

$4(m^2+7m-3)$

$$\begin{array}{r} m^4+7m^3-3m^2 \\ -5m^3-35m^2+15m \\ +\quad 4m^2+28m-12 \\ \hline m^4+2m^3-34m^2+43m-12 \end{array}$$

I can multiply polynomials using FOIL method.

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FOIL

FIRST OUTSIDE INSIDE LAST

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

First $(x \quad)(x \quad)$

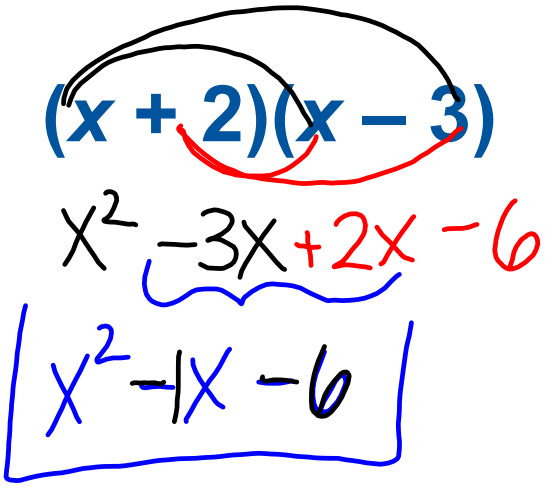
Outside $(x \quad)(\quad -3)$

Inside $(\quad +2)(x \quad)$

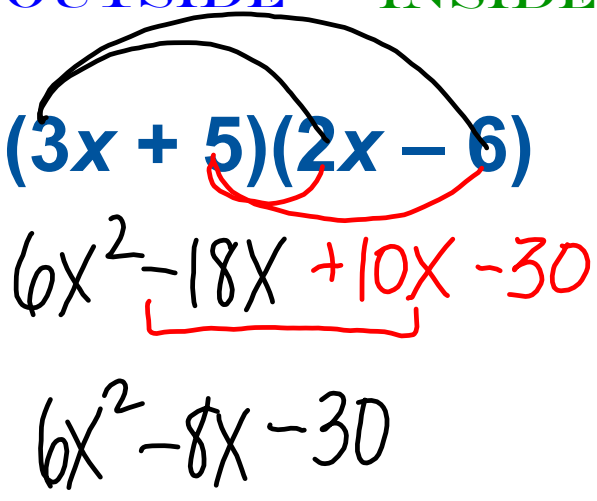
Last $(\quad +2)(\quad -3)$

FOIL

FIRST OUTSIDE INSIDE LAST



FIRST OUTSIDE INSIDE LAST



You Try!!

Use FOIL to multiply.

1. $(n - 5)(n + 1)$
2. $(3c + 1)(c - 2)$
3. $(x + 9)(x - 7)$

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

$(7z + 2)^2$

$(7z + 2)(7z + 2)$

$49z^2 + 14z + 14z + 4$

$49z^2 + 28z + 4$

1
4
9
16
25
36
49
64
81 . . .

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. $(3x + 2)^2$ $9x^2 + 12x + 4$

2. $(2m - 3)^2$ $4m^2 - 12m + 9$

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

Area of a square $A = s^2$

$A = s^2$

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

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

Expand, FOIL.

Answer: The area of the square is $9x^2 + 72x + 144$ square units.

un^2

You Try:

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

Answer:

Product of a SUM ~~and~~ a DIFFERENCE

$(9d + 4)(9d - 4)$

$81d^2 - 36d + 36d - 16$

$81d^2 - 16$

The Difference of Squares

You Try:

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

$(x+4)(x-4)(x-7)$

$x^2-4x+4x-16$

$(x^2-16)(x-7)$

Homework 8.4

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