

Warm-Up

December 16, 2019

1. Identify the like terms

← same variable
same degree

~~$2x^2$~~ , ~~$-x$~~ , ~~$-x^2$~~ , ~~y^2~~ , $2y$, ~~$3x$~~ , ~~$-y^2$~~
 $2x^2, -1x^2$
 $-x, 3x$
 $y^2, -1y^2$
 $2y$

2. Write the simplified expression [remember to group first!]

↓
collect like terms.

a) $3x^2 + 4y - 2x + 4y - 6x^2$

$(-6x^2 + 3x^2) + (4y + 4y) - 2x$

$-3x^2 + 8y - 2x$

~~$6y^2x^2$~~
 ~~$6yx^2$~~

b) $3x^2y - 2xy + 4yx^2 - 6yx$

$(3x^2y + 4x^2y) - (2xy + 6xy)$

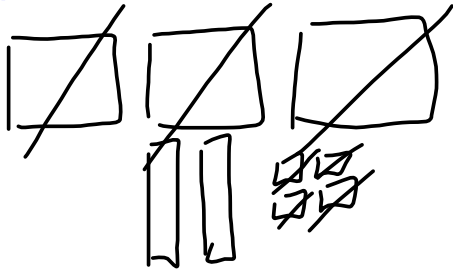
$7x^2y - 8xy$



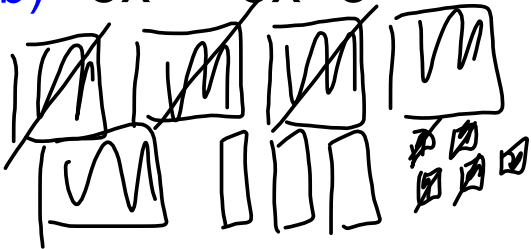
Sec. 5.3 Adding Polynomials

Model

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



b) $-5x^2 + 3x - 5$



a+b [simplified]



***Remember**

$$\begin{aligned} (+)(+) &= (+) \\ (-)(-) &= (+) \\ (+)(-) &= (-) \end{aligned}$$

a + b

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

1. Remove the brackets.

$$3x^2 + 2x + 4 - 5x^2 + 3x - 5$$

Group $3x^2 - 5x^2 + 2x + 3x + 4 - 5$

simplify $-2x^2 + 5x - 1$

1. Copy the question
2. Remove the brackets
3. Group
4. Simplify

$$\textcircled{1} \quad (-3x^2 + 4x - 2) + (2x^2 - 6x + 5)$$

$$\textcircled{2} \quad -3x^2 + 4x - 2 + 2x^2 - 6x + 5$$

$$\textcircled{3} \quad -3x^2 + 2x^2 + 4x - 6x \quad \boxed{-2 + 5}$$

$$\textcircled{4} \quad -1x^2 - 2x + 3$$

Simplify the following

↳ Remove Brackets

↳ Group

↳ Simplify

$$-2(4x + 2) + 3(3x - 6)$$

$$-8x - 4 + 9x - 18$$

$$-8x + 9x - 4 - 18$$

$$1x - 22$$

Section 5.4

Subtracting Polynomials

What we already know how to do:
[Remove brackets, Group, Simplify]

$$(-2a^2 + a - 1) - (a^2 - 3a + 2)$$