

Name:

Date:

Period:

## Adding

- Drop the parenthesis
- **REORGANIZE** the problem by making a table
- Use the integer rules to combine like terms

$$(4x + 3y - 5z) + (3x - 5y - 6z) + (-2x - y + 3z)$$

<u>x</u>	<u>y</u>	<u>z</u>
4x	+3y	-5z
3x	-5y	-6z
-2x	-1y	+3z
5x	-3y	-8z

$$\text{Answer: } 5x - 3y - 8z$$

## Subtracting

- Distribute the “-1” to eliminate the parenthesis
- **REORGANIZE** the problem by making a table
- Use the integer rules to combine like terms
- Watch for the words like “subtract from”....ORDER MATTERS!!

$$(-5a^3 + 2a^2 - 10a) - (2a^3 + 4a^2 - 3a)$$

<u>a<sup>3</sup></u>	<u>a<sup>2</sup></u>	<u>a</u>
-5a <sup>3</sup>	2a <sup>2</sup>	-10a
-2a <sup>3</sup>	-4a <sup>2</sup>	+3a
-7a <sup>3</sup>	-2a <sup>2</sup>	-7a

$$\text{Answer: } -7a^3 - 2a^2 - 7a$$

$$(2a^3 + 4a^2 - 3a) + (-5a^3 + 2a^2 - 10)$$

<u>a<sup>3</sup></u>	<u>a<sup>2</sup></u>	<u>a</u>	<u>#</u>
2a <sup>3</sup>	+4a <sup>2</sup>	-3a	+0
-5a <sup>3</sup>	+2a <sup>2</sup>	+0	-10
-3a <sup>3</sup>	+6a <sup>2</sup>	-3a	-10

$$\text{Answer: } -3a^3 + 6a^2 - 3a - 10$$

$$(5x^2 - 6x + 3) - (2x^2 - 9x - 6)$$

<u>x<sup>2</sup></u>	<u>x</u>	<u>#</u>
5x <sup>2</sup>	-6x	+3
-2x <sup>2</sup>	+9x	+6
3x <sup>2</sup>	+3x	+9

$$\text{Answer: } 3x^2 + 3x + 9$$

Try these on a separate piece of paper:

1.  $(3y - 6) - (8 - 9y)$

2.  $(6a^2 + 4a + 3) + (-4a^2 - 5)$

3. Subtract  $x^2 - 3x + 5$  from  $5x^2 + 5x - 4$

4.  $(x^2 + 3x - 4) - (-7x^2 - 3x + 2)$

5. When  $a^2 + a - 3$  is subtracted from  $3a^2 - 5$ , the result is

6.  $(4r - 6s + 5t) + (-2s + 6t)$

7.  $5x - (2x - 5)$

8.  $6a + [5a + (6 - 3a)]$

9. From  $4x + 2y$ , subtract  $x - 4y$