Unit 4: Adding and Subtracting Polynomials Notes

**REORDERING TERMS OF A POLYNOMIAL BASED ON DEGREE:**

MOVE TERMS AND KEEP THE SIGN WITH THE TERM

**Example: Arrange the polynomials in descending order according to the powers of the x**.

a) 6x2 + 5 – 8x – 2x3 b) 7x2 –11x4 + 8 – 2x5

c) 25x6 –3x2 + 7x5 + 15x8 d) 3a3x2 – a4 + 4ax5 + 9a2x

e) 15x5 – 2x2 y2 – 7yx4 + x3y

**ADDING AND SUBTRACTING POLYNOMIALS:**

**\* When adding and subtracting polynomials, you COMBINE LIKE TERMS.**

**\* Be careful of parentheses and positive or negative signs with the operations.**

**Exp 1:** (3x2 – 4x + 8) + (2x – 7x2 – 5) **Exp 4:** (6y2 + 8y4 – 5y) – (9y4 – 7y + 2y2)

**Exp 2:** (3n2 + 13n3 + 5n) – (7n + 4n3) **Exp 5:** (7y2 + 2y – 3) + (2 – 4y + 5y2)

**Exp 3:** (2b2 + 8ab3 + 4b) – (9b – 5ab3) **Exp 6:** (3x2 + 5x + 2) – (4 – 2x) + (5x2 + 7)

**Find the sum or difference:**

1) (x3 - 7x + 4x2 – 2) – (2x2 – 9x + 4) 2) (3a + 2b – 7c) + (6b – 4a + 9c)

3) (5y2 – 2xy + 6x2 – 3x + 7y – 9) + (3x2 – 4x + 5) – (5y2 – 3y + 6)

Unit 4: Application Problems Notes Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8y

6xy

1. Area of the Rectangle



1. Area of the Circle



Area of a Pentagon



Area of the Oval



1. Dragon toys earns profits given by the formula . Playhouse Toys estimates their profits using the formula . The profit margin is the difference between the two company’s profits. What is the profit margin?
2. What is the area of a square that has a side length ?
3. Find the perimeter of a rectangle that has a length of  and a width of .

4x2y

1. 7. What is the value of x if the perimeter of the

6x - 8

17 – 3x

5x - 3

8x5y12

12x2y

Triangle is 54.