

Review for PC #1 (7.1 – 7.3)

1. What is standard form?

When the exponents of the terms
go from highest to lowest

2. Find the product.

$$(2x + 1)(3x - 5)$$

$$6x^2 - 10x + 3x - 5$$

$$6x^2 - 7x - 5$$

3. Simplify. Put your answer in standard form. Then name the polynomial.

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

$$p^2 + 2p + 3 + 4p^2 + p^3 - 7$$

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

cubic polynomial

4. Find the product.

$$(4x - 7)^2$$

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

$$16x^2 - 28x - 28x + 49$$

$$16x^2 - 56x + 49$$

5. The length of a rectangle is represented by $(3x^2 - 2x + 4)$ and the width is represented by $(2x^2 + 6x)$. Write a polynomial that expresses the perimeter of the rectangle.

$$P = l + l + w + w$$

$$P = 3x^2 - 2x + 4 + 3x^2 - 2x + 4 + 2x^2 + 6x + 2x^2 + 6x$$

$$= 10x^2 + 8x + 8$$

6. The length of a rectangle is represented by $(x + 4)$ and the width is represented by $(2x^2 + 6x - 3)$. Write a polynomial that expresses the area of the rectangle.

$$A = l \cdot w$$

$$A = (x+4)(2x^2+6x-3)$$

$$= 2x^3 + 6x^2 - 3x + 8x^2 + 24x - 12$$

$$A = 2x^3 + 14x^2 + 21x - 12$$

7. Find the product.

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

$$12x^2 - 3x^4 + 6x^3$$

$$= -3x^4 + 6x^3 + 12x^2$$

8. Find the product.

$$(2x + 5)(2x - 5)$$

$$4x^2 - 10x + 10x - 25$$

$$4x^2 - 25$$

9. Simplify. Put your answer in standard form. Then name the polynomial.

$$(x^2 - x - 2) + (7x^2 - x + 6)$$

$$x^2 - x - 2 + 7x^2 - x + 6$$

$$8x^2 - 2x + 4$$

quadratic trinomial

10. Find the product.

$$(5g + 3)(g - 8)$$

$$5g^2 - 40g + 3g - 24$$

$$5g^2 - 37g - 24$$