3.5.20

At The Bell: **PSSA:** Write the polynomial in standard form.

Name the polynomial by degree and terms.

$$6x^2 - 13x^3 - 4x^5 + 4 - 9x + 3x^2 + 13x^3$$

Algebra 1 (Swanick) Name_____

Chapter 8 Review

Date_____ Period____

Name each polynomial by degree and number of terms.

1) $3m - 5$

2) $-4x^4 - 9x^2 + 4x$

Simplify each expression.

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

4) $(5r + 5r^3 - 6r^4) + (6r^3 - 4r - 7r^2)$

5) $(x + 5x^4 - 7) + (x - 6x^4 + 8)$

6) $(7 - 7v^4 - 2v^3) - (6 + 2v^3 - 3v^4)$

Factor the common factor out of each expression. (GCF)

7) $-27a^4 - 21a^3 - 18a^2$

8) $9k^5 - 63k^4 + 63k^3$

Find each product.

9) $-7(2x + 6)$

10) $(6n + 7)(n + 2)$

11) $8(8k^2 - 3k + 2)$

12) $(3p - 8)^2$

Factor each completely.

13) $v^2 - v$

14) $x^2 + 15x + 50$

15) $4m^2 - 1$

16) $5r^3 + 4r^2 - 15r - 12$

Assignment:

STUDY!

Algebra 1 (Swanick) Name_____

Chapter 8 Review

Date_____ Period____

Name each polynomial by degree and number of terms.

1) $3m - 5$

linear binomial

2) $-4x^4 - 9x^2 + 4x$

quartic trinomial

Simplify each expression.

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

$-11x^4 + 3x^3 + 8x^2$

4) $(5r + 5r^3 - 6r^4) + (6r^3 - 4r - 7r^2)$

$-6r^4 + 11r^3 - 7r^2 + r$

5) $(x + 5x^4 - 7) + (x - 6x^4 + 8)$

$-x^4 + 2x + 1$

6) $(7 - 7v^4 - 2v^3) - (6 + 2v^3 - 3v^4)$

$-4v^4 - 4v^3 + 1$

Factor the common factor out of each expression. (GCF)

7) $-27a^4 - 21a^3 - 18a^2$

$-3a^2(9a^2 + 7a + 6)$

8) $9k^5 - 63k^4 + 63k^3$

$9k^3(k^2 - 7k + 7)$

Find each product.

9) $-7(2x + 6)$

$-14x - 42$

10) $(6n + 7)(n + 2)$

$6n^2 + 19n + 14$

11) $8(8k^2 - 3k + 2)$

$64k^2 - 24k + 16$

12) $(3p - 8)^2$

$9p^2 - 48p + 64$

Factor each completely.

13) $v^2 - v$

$v(v - 1)$

14) $x^2 + 15x + 50$

$(x + 5)(x + 10)$

15) $4m^2 - 1$

$(2m + 1)(2m - 1)$

16) $5r^3 + 4r^2 - 15r - 12$

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