# 3.11.20

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

Name the polynomial by degree and terms.

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

$4x^5 - 19x^2 + x + 7$

Quintic Polynomial

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1. I
2. C
3. O
4. Y
5. L
6. S
7. J
8. R
9. B
10. F
11. A
12. E
13. N
14. T

TENNIS BALL
FACTORY REJECT

$(2t-1)(t+3)=0$

$(2x-5)(x+1)=0$

$K(2K-7)=0$

$(3b-5)(b+2)=0$

$b+2=0$
$-2 \quad -2$
$b=-2$

$3b-5=0$
$+5 \quad +5$
$\frac{3b}{3}=\frac{5}{3}$
$b=\frac{5}{3}$

**Solve each equation by factoring.**

19) $(4a-7)(a-2)=0$

20) $v^2+5v+6=0$

**Solve each equation by factoring. (SHOW YOUR WORK!)**

21) $3n^2+24n+21=0$

**Computer capacity is often measured in bits and bytes. A bit is the smallest unit, which is a 1 or 0 in the computer's memory. A byte is $2^3$ bits. A megabyte (MB) is $2^{20}$ bytes.**

22) a) How many bits are in a megabyte? (Write the answer as a power of 2. SHOW YOUR WORK.)

b) A gigabyte (GB) is $2^{30}$ bytes. How many bits are ina gigabyte? (Write your answer as a power of 2. EXPLAIN YOUR PROCESS.)

Algebra 1 (Swanick) Name_____

Unit 3 (Ch 7, 8, 9) Review Date_____ Period____

**Write the expression in expanded form.**

1) $6x^4y^3$

**Simplify. Your answer should contain only positive exponents.**

2) $\left(p^{-4}r^3 \cdot p^{-2}q^3\right)^0$

3) $3m^0 \cdot m^4$

4) $2v^{-2}$

**Evalute the expression for $x = 4$ and $y = 5$.**

5) $x^{-1}y$

**Simplify. Your answer should contain only positive exponents.**

6) $4x^0y^{-1}$

7) $3xy^3 \cdot x^3y^3$

8) $-\dfrac{3u^3v^2}{u^2v^3}$

9) $(3u^4v^3)^2$

**Simplify.**

10) $(6 + 8x^2 + 2x) + (8 + 4x^2 - 4x)$

11) $(3x^4 + 8x^3 + x^2) - (2x^3 + 6x^2 + 8x^4)$

**Find each product.**

12) $5k^3(6k^2 - 2k + 6)$

13) $(5v - 6)(8v + 3)$

**Factor the common factor out of each expression.**

14) $42n^2 - 49n$

**Factor each completely.**

15) $m^2 + 6m - 27$

16) $a^2 - 4$

17) $x^2 - 13x + 30$

18) $x^2 - x - 56$

# Assignment:

STUDY!

**Solve each equation by factoring.**

19) $(4a-7)(a-2)=0$

20) $v^2+5v+6=0$

**Solve each equation by factoring. (SHOW YOUR WORK!)**

21) $3n^2+24n+21=0$

$3(n^2+8n+7)=0$

$3(n+7)(n+1)=0$

$n+7=0 \quad n+1=0$

$n=-7 \quad n=-1$

$\{-7,-1\}$

**Computer capacity is often measured in bits and bytes. A bit is the smallest unit, which is a 1 or 0 in the computer's memory. A byte is $2^3$ bits. A megabyte (MB) is $2^{20}$ bytes.**

22) a) How many bits are in a megabyte? (Write the answer as a power of 2. SHOW YOUR WORK.)

$2^3 \cdot 2^{20} = 2^{3+20} = 2^{23}$

b) A gigabyte (GB) is $2^{30}$ bytes. How many bits are ina gigabyte? (Write your answer as a power of 2. EXPLAIN YOUR PROCESS.)

$2^3 \cdot 2^{30} = 2^{3+30} = 2^{33}$

Algebra 1 (Swanick) Name_____

# Unit 3 (Ch 7, 8, 9) Review

Date_____ Period____

**Write the expression in expanded form.**

1) $6x^4y^3$

2 3 x x x x y y y

**Simplify. Your answer should contain only positive exponents.**

2) $(p^{-4}r^3 \cdot p^{-2}q^3)^0$

1

3) $3m^0 \cdot m^4$

$3m^4$

4) $2v^{-2}$ $\frac{2}{v^2}$

**Evalute the expression for $x = 4$ and $y = 5$.**

5) $x^{-1}y$ $\frac{5}{4}$

**Simplify. Your answer should contain only positive exponents.**

6) $4x^0y^{-1}$ $\frac{4}{y}$

7) $3xy^3 \cdot x^3y^3$

$3x^4y^6$

8) $-\frac{3u^3v^2}{u^2v^3}$ $-\frac{3u}{v}$

9) $(3u^4v^3)^2$

$9u^8v^6$

**Simplify.**

10) $(6 + 8x^2 + 2x) + (8 + 4x^2 - 4x)$

$12x^2 - 2x + 14$

11) $(3x^4 + 8x^3 + x^2) - (2x^3 + 6x^2 + 8x^4)$

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

**Find each product.**

12) $5k^3(6k^2 - 2k + 6)$

$30k^5 - 10k^4 + 30k^3$

13) $(5v - 6)(8v + 3)$

$40v^2 - 33v - 18$

**Factor the common factor out of each expression.**

14) $42n^2 - 49n$

$7n(6n - 7)$

**Factor each completely.**

15) $m^2 + 6m - 27$

$(m + 9)(m - 3)$

16) $a^2 - 4$

$(a + 2)(a - 2)$

17) $x^2 - 13x + 30$

$(x - 10)(x - 3)$

18) $x^2 - x - 56$

$(x + 7)(x - 8)$

**Solve each equation by factoring.**

19) $(4a - 7)(a - 2) = 0$ $\left\{\frac{7}{4}, 2\right\}$

20) $v^2 + 5v + 6 = 0$

$\{-2, -3\}$