Chapter 5 Review Materials, Exponents & Polynomials, Math 152A, Instructor Morrow

**This assignment is due in class before the exam on Monday, June 6th**

1. Evaluate $3^4$ _____ $(2/3)^2$ _____ $5(6^2)$ $(.03)^3$ =_____
2. Write as an exponential expression: 49 _____ 8/27 _____ -100 = _____
3. The base for $-3^2$ is _____
4. If m and n are positive integers, and a is real then $a^m$ ( $a^n$ )= _____
5. Simplify $(x^2y)(3y^5z^4)$ _____ $(-a^6b^4)(3ab^0)$ _____ $(mn^2)^3$ = _____
6. T/F: $(a/c)^n = a^n/c^n$ _____ $-a^0 = 1$ _____ $5x^2y$ has degree 4 _____
7. The degree of a term is _____
8. Circle any binomials: $6x^2y$, $5a + 7b$, $3m + 4n - 5$, $x - 4$, $-8 + 2y - 3$
9. The degree of a polynomial is _____
10. If $H(t) = -16t^2 + 1150$ gives height in feet of an object above the ground at t seconds, find H(3)

11. Subtract: $15m^2 + n + 8 - (3m^2 - 10)$ _____
12. T/F: $(7z - 4) - (3z - 2) = 7z - 4 - 3z - 2$ _____
13. $(-2c)(-c)$ = _____ $-2c + c$ = _____
14. Divide: $3m^4n^3 / m^3n^4$ _____
15. Use the distributive property to multiply: $8x(7x^4 + 1)$ _____
16. Can $3m^2n$ be combined with $-n^2m$? Why or why not? _____
17. Multiply $(5x-3y)^2$ _____ $(3a+5)(3a-5)$ _____ $(6m)^2$ _____
18. Find the product: $(y/6 - 8)(y/6 + 8)$ _____
19. Write with positive exponents: $2a^{-3}$ _____ $1/7^{-5}$ _____
20. If a is a real number other than 0, and n is an integer, then $a^{-n}$ = _____
21. Simplify & write using positive exponents: $(2/3)^{-3}$ = _____ $(3x^2y/z^{-1})^{-2}$ = _____
22. T/F: $1/a^{-n} = a^n$ _____ $2^{-4} = -1/16$ _____
23. Circle the number that is in correct scientific notation: $8.4 \times 10^{-5}$ $84 \times 10^{-5}$
24. Multiply and put into correct scientific notation: $(9x10^7)(4x10^{-5})$ _____
25. T/F: $(a+b)/c = a/c + b/c$ _____ Divide $x^2 + 12x + 35$ by $(x+5)$
26. In the polynomial division problem above, _____ is the dividend.