Name: _____ Algebra
Date: _____ Unit 1
Class: _____ PS

Remember, this assignment is 15 points of your 100 point test grade. You can have this assignment checked as many times as you wish prior to the test. It is due at the beginning of class the day you take the test

1) [3] If you were to subtract the number of terms in $3x^4 - x^2 + 2x - 4$ from the number of terms in $100ab^2x^5y^3z$ what would your answer be? Explain.

2) [2] If you were to multiply the degree of $3x^4 - x^2 + 2x - 4$ by the degree of $3x^7 - x^2 - 4$, what would your answer be?

3) [4] Evaluate: $\left|4 - 5 - \frac{7}{3}\right| - 2\left|\frac{5}{2} + 6\frac{1}{3} - 10\right|$

4) [2] Evaluate: $2\frac{3}{7} - 10\frac{8}{9}$

5) [3] Using a reciprocal, explain why $\frac{\frac{1}{3}}{\frac{4}{9}} = \frac{3}{4}$

6) [3] Evaluate: $\frac{2-7(8-4)^2}{(10)(5)-4(8)}$

7) [4] You can determine how much money is in your bank account after d days using the expression: $\frac{d^2}{8} + 5d + 120$. If you started saving August 1st, how much money would you have on October 1st?

8) [2] Which of the following properties was used in this situation:

2x – 7 – 5x – 8 – 3x

2x – 5x – 3x – 7 – 8

9) [3] Simplify: x(3x – 5) – 4(x + 3) – $(x^2 - 2x)$

10) [4] Simplify: $(\frac{1}{2}x - 6)(3 - 2x)$

11) [4] Simplify: $\left(\frac{2}{3}x - 7\right)^2$

12) [4] You have begun to save money for a car that you want to buy in 6 months. You have $2500 saved already. Each month you plan to save $300 from your part time job. Your birthday is in 4 months and you normally get $800 total from all of your family/friends and you plan to save $\frac{3}{4}$ of that money. You also graduate in 5 months and you plan to save half of that money (which you estimate will be $1000). How much money will you have saved just before your graduate?

13) [3] If you drive 125 miles in 3 hours, how much can you expect to drive over the next 5 hours if you maintain the same rate?

14) [3] If you normally drink 1.5 glasses of milk every day, how much milk will you have drank in 2.5 weeks?

15) [4] Steve has x dollars in his bank account. Jenny has 9 less than half as much in her bank account as Steve does. Mitch has twice the amount in his account that Jenny does. Write an expression to show how much money they all have combined.

16) [3] If x is an odd integer, write an expression for the next two consecutive odd integers that are less than x.

17) [4] Simplify: $(3x^2y^4)^2(2x^3y^2z)^3$

18) [4] A theater has 10 seats in the 1st row, 17 in the 2nd row, and 24 in the 3rd row. How many seats would you expect there to be in the 6th row? Would the expression 2r + 8 accurately predict how many seats would be in a row (why or why not)?