**Polynomials Extra Practice**

***Complete all work on a separate sheet of paper please.***

**A. Write the standard form of each polynomial. Then classify according to degree & number of terms.**

1. 3x2(xy – 8x) – (9x3y + 10) 2. (7m – 2)(m2 – 4) + (3m + m2)

**B. Write a polynomial in standard form with the given zeros.**

3. Zeroes: -3i (M.2), ¾ (M.1) 4. -9 (M.3) and ½ (M.1)

**C. Factor to determine the zeros of each polynomial.**

5. 2x3 + 11x2 – 40x 6. x4(x – 4)3 – 256(x – 4)3

7. x6 + 15x4 – 250x2 8. 8x7 – 24x6 – 704x5

**D. Choose either problem 1 or problem 2, and explain your strategy in accomplishing the task. What steps did you take? Why was each step important? What challenges did you encounter, and how did you handle those challenges? How can you go about checking the conclusion you arrived at? What prior knowledge did you use to accomplish the task?**

**E. Repeat part D for either problem 3 or 4 (you choose).**

**F. Repeat part D for either problem 5 or 6 (you choose).**

**G. Division Review (looking ahead to next section ☺)**

9. What is 12p8q3 divided by -3p2q, and how do you know?

10. Use long division to divide 1238 by 7.