

Lesson #13-2: Understanding Polynomial Functions and Sketching Graphs of Polynomial Functions
(Reference: Lesson #101 in book)**Problem**

1. For each of the following Identify the leading coefficient, degree of the polynomial, and describe the end behavior of the function.

1. $f(x) = 12x^3 - 41x^2 - 38x + 40$.

2. $f(x) = 4x^4 + 13x^3 - 49x^2 - 73x - 15$

3. $f(x) = -2x^5 + 2x^4 - 2x^3 + 2x^2 + 24x - 24$

4. $f(x) = -x^8 - 2x^7 - 4x^6 - 8x^5 + x^4 + 2x^3 + 4x^2 - 8x$

5. Graph each of the following polynomial functions on a graphing sheet of paper using the procedure we discussed in class. (SHOW ALL OF YOUR WORK TO RECIEVE FULL CREDIT).

5. $f(x) = x^3 - 5x^2 + 2x + 8$

6. $f(x) = 2x^3 - 6x^2 - 4x + 12$

7. $f(x) = -2x^3 - x^2 + 8x + 4$

8. $f(x) = x^4 - 3x^3 + 2x^2 - 6x$

9. $f(x) = -x^4 + 5x^3 - 2x^2 - 8x$

10. $f(x) = 2x^4 + x^3 + 3x^2 + 3x - 9$