

## Math 77 - Practice Midterm 1

( will be held the week 5 from Monday, September 27 to Friday, October 1).

The problems are from the book:

1. probs 25, 26, 27, 28 Pg 23
2. probs 19 pg 15. Also find the half life
3. probs 3,13,16 pg 27
4. probs 10, 6, 17 pg 49
5. prob 1 pg 61
6. There will be two questions with this kind of problems:
  - prob 8,11,pg 93
  - probs 1,2,8 pg 83
  - prob 30 pg 84
7. prob 29 pg 101
8. graph a function which is
  - concave up for  $x < 0$
  - decreasing for  $x > 0$
  - increasing for  $x < 0$
9. Consider the function  $f(x) = x^5 - 2x^4 + 3x - 2$ .
  - (a) Estimate  $f'(x)$ , using  $h = 0.01$
  - (b) Find the exact derivative function using the power rule.
  - (c) Give the equations of the tangent line at  $x = 1$
  - (d) Estimate  $f(1.1)$  using the tangent line and compare it with the value of  $f(1.1)$