Midterm Exam III Practice Problems
Fall 2013, MAT 175 Section C401[19514]
November 8th, 2013.

Instructions: All these problems will be asked identically in coming Midterm Exam III.

1.(Sample Final I-13) Find the absolute maximum and minimum *values* of $f(x) = 2x^3 - 4x^2$ on the closed interval $[-1, 2]$.(10 Points)

2.(Sample Final I-13) Find the absolute maximum and minimum *values* of $f(x) = x^3 - x^2$ on the closed interval $[0, 1]$.(10 Points)

3.(Sample Final I-14) Find all relative extrema of $F(x) = x^4 + 5x^2 + 6$.(10 Points)

4.(Sample Final I-14) Find all relative extrema of $F(x) = x^3 - x^2$.(10 Points)

5.(Sample Final I-14) Find all relative extrema of $F(x) = 2x + \frac{2}{x}$.(10 Points)

6.(Sample Final I-11) Find where the graph of $y = -x^3 + x^2 + 2x - 1$ is concave up and concave down, and find all inflection points.(10 Points)

7.(Sample Final I-11) Find where the graph of $y = x^3 - x^2$ is concave up and concave down, and find all inflection points.(10 Points)

8.(Sample Final I-11) Find concavity and inflection points of the graph of $y = x^4 - 4x^3$.(10 Points)