

## Math1210 Midterm 3 Review Problems

Kelly MacArthur

Chapter 3 Review (Concepts Test) pg 209-210

#4 - 12 all, 15, 17, 19, 21, 22, 24, 27, 36, 38, 40, 41, 42

Chapter 3 Review (Sample Test Problems) pg 210-213

#21-37 odd, 22, 26, 40-43 all, 45, 49, 50, 53-73 odd

Chapter 4 Review (Concepts Test) pg 270-271

#1-3 all, 8, 9

Chapter 4 Review (Sample Test Problems) pg 272

#18-21 all, 23, 24, 25

The test covers sections 3.3-3.9, and 4.1-4.2.

You can also bring a 4x6 inch note card of notes (on both sides, if you want) to use as a reference. Make sure it's truly a 4x6 card and not something that closely resembles a 4x6 card. If you need one, I can provide one for you.

### **Topics:**

--Analyze graph

- vertical and horizontal asymptotes
- increasing/decreasing (first derivative sign line)
- concavity (second derivative sign line)
- min/max points
- inflection points
- sketch graphs

--Optimization Problems

--Mean Value Theorem for Derivatives

--Solving Equations Numerically

- Bisection Method
- Newton's Method
- Fixed Point Algorithm

--Antiderivatives

--Solve Differential Equations

--Special Sum Formulas/Area

--Definite Integration