

## Study guide for exam 2 - Math 430 - Whittlesey

**Disclaimer: this study guide is not necessarily comprehensive; there may be questions on the exam not mentioned here.**

Section 26: Def 4.7,4.8; Thm 4.17 and its pf. Example 7 details.

Section 27: Def. 4.9; thm 4.20 and its pf; def. 4.10.

Section 28: Def 5.1, example 5,6; problem 7ac, 11 (see sec. 34 #9)

Section 29: example 2,3; thm 5.1 and its pf; problem 2.

Section 31: pf of thms 5.3, 5.4 and 5.5 (for 5.5, see class notes.) Thm 5.6 (but not the pf.) Problem 5c,6b, 7a.

Section 34: problem 9.

Section 35: Thm 6.1 (not the pf.) Thm 6.2 and its pf. Thm 6.4 and its pf, thm 6.5 and its pf, thm 6.6. Problem 4.

Section 38: Problem 2b

Section 39: Problems 10cdi, 12dh, 14b

Section 41: Thm 6.19 and its pf, Thm. 6.21 and its pf, 6.22 and its pf, 6.23. Thm 6.24: know how to prove that if  $f'(x) > 0$ ,  $< 0$ ,  $\geq 0$ , or  $\leq 0$ , then  $f(x_1) > f(x_2)$  for  $x_1 > x_2$ , etc. See your class notes or the middle of p. 317. Problems 5,18bc,19d,25.

Section 42: Problems 1b,2aef.