

## MATH 2250: Unit 3 Extra Practice

### 3.11 Linearization and Differentials

**Problems:** 3.11 #3, 8, 11, 15, 16, 39, 43, 45, 53, 54, 58, 61, 64, 66

### 4.1 Extreme Values of Functions

**Problems:** 4.1 #1-14, 21, 23, 25, 27, 31, 33, 35, 37, 39, 53, 55, 57, 63, 65, 69, 75, 80, 81, 84, 86

### 4.2 The Mean Value Theorem

**Problems:** 4.2 #9, 10, 11, 15, 18, 19, 21, 25, 29, 31, 33, 37, 41, 45, 47, 51, 52, 69, 76a

### 4.3 Monotonic Functions and the First Derivative Test

**Problems:** 4.3 #1, 3, 5, 11, 19, 23, 27, 33, 37, 43, 63, 67, 69, 80

### 4.4 Concavity and Curve Sketching

**Problems:** 4.4 #1, 3, 11, 17, 19, 23, 33, 49, 53, 71, 77, 105, 111;  
**Practice Problems** (p. 277) #55, 57, 59

### 4.5 Indeterminate Forms and L'Hôpital's Rule

**Problems:** 4.5 #3, 5, 9, 15, 19, 21, 23, 25, 51, 55, 57, 75, 77

### 4.6 Applied Optimization

**Problems:** 4.6 #1, 3, 4, 5, 7, 11, 12, 14, 20, 22, 23, 24, 25, 27, 38, 39, 49, 52, 57  
**Additional and Advanced Exercises** (p. 280) #13, 15, 17, 35