

### **Math 16B Homework Assignments.**

All problems are from the 9th edition of *Calculus: An Applied Approach* by Ron Larson.  
See the class **Syllabus** for instructions.

#### **HOMEWORK 1**

##### **Section 4.1 (Exponential Functions)**

Problems 1, 3, 5, 7, 9, 11, 13, 17, 19, 21, 23

##### **Section 4.2 (Natural Exponential Functions)**

Problems 1, 3, 11, 13

##### **Section 4.3 (Derivatives of Exponential Functions)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 39, 41, 47

##### **Section 4.4 (Logarithmic Functions)**

Problems 1, 3, 5, 7, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 77

#### **SUBMIT TO GRADESCOPE BY 10:00PM ON MONDAY, APRIL 10:**

Section 4.3 Problem 21 and Section 4.4. Problem 45

#### **HOMEWORK 2**

##### **Section 4.5 (Derivatives of Logarithmic Functions)**

Problems 1, 3, 5, 7, 9, 11, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65

##### **Section 4.6 (Exponential Growth and Decay)**

Problems 1, 3, 5, 7, 9, 21

##### **Section 5.1 (Antiderivatives and Indefinite Integrals)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 63, 65, 69

#### **SUBMIT TO GRADESCOPE BY 10:00PM ON MONDAY, APRIL 17:**

Section 4.5 Problem 11 and Section 5.1 Problem 47

### **HOMEWORK 3**

#### **Section 5.2 (Integration by Substitution and the General Power Rule)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 47, 49, 51, 53, 55

#### **Section 8.5 (Simple Trigonometric Integrals)**

Problems 1, 3, 5, 7, 9

#### **Section 5.3 (Exponential and Logarithmic Integrals)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 29, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 55, 57

#### **SUBMIT TO GRADESCOPE BY 10:00PM ON MONDAY, APRIL 24:**

Section 5.2 Problem 53 and Section 5.3 Problem 25

### **HOMEWORK 4**

#### **Section 5.4 (Definite Integrals and the Fundamental Theorem of Calculus)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 53, 55, 57, 59, 61, 63, 65

#### **Section 5.5 (Area of a Region Bounded by Two Graphs)**

Problems 1, 3, 5, 7, 9, 11, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 49

#### **SUBMIT TO GRADESCOPE BY 10:00PM ON MONDAY, MAY 1:**

Section 5.4 Problem 15 and Section 5.5 Problem 7

### **HOMEWORK 5**

#### **Posted Section on Volumes (Volumes of Solids of Revolution (disk/washer method))**

Problems 1, 3, 5, 7

#### **Section 6.1 (Integration by Parts)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57

#### **SUBMIT TO GRADESCOPE BY 10:00PM ON MONDAY, MAY 8:**

Volumes Problem 5 and Section 6.1 Problem 7

### **HOMEWORK 6**

#### **Section 8.5 (Trigonometric Integrals)**

Problems 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61

#### **Posted Section (Partial Fractions)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 51

#### **SUBMIT TO GRADESCOPE BY 10:00PM ON MONDAY, MAY 15:**

Section 8.5 Problem 61 and Partial Fractions Problem 23

## **HOMEWORK 7**

### **Section 6.4 (Improper Integrals)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25

### **Section 9.1 (Discrete Probability)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 23, 25, 27, 29, 31, 33, 35

### **Section 9.2 (Continuous Random Variables)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29

### **SUBMIT TO GRADESCOPE BY 10:00PM ON MONDAY, MAY 22:**

Section 6.4 Problem 11 and Section 9.2 Problem 13

## **HOMEWORK 8**

### **Section 9.3 (Mean and Median; Variance and Standard Deviation)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 33, 35, 37, 39, 41, 43

### **SUBMIT TO GRADESCOPE BY 10:00PM ON WEDNESDAY, MAY 31:**

Section 9.3 Problems 5 and 39

## **HOMEWORK 9**

### **Section 5.6 (The Definite Integral as the Limit of a Sum, and the Midpoint Rule)**

Problems 1, 3, 5, 7, 9, 11, 13, 15, 17, 27, 29

### **SUBMIT TO GRADESCOPE BY 10:00PM ON MONDAY, JUNE 5:**

Section 5.6 Problems 1 and 13

## **HOMEWORK 10**

### **Section 6.3 (Numerical Integration: The Trapezoidal Rule and Simpson's Rule)**

Problems 1, 3, 5, 7, 9, 11

### **Section 6.2 (Integration Tables and Completing the Square)**

Problems 1, 3, 5, 7, 11, 13, 23, 29, 36, 51, 53

**NO PROBLEMS TO SUBMIT FOR THIS HOMEWORK!**