

# Calculus of Several Variables (Math 214)

## Assignments

Fall Semester, 2003

Assignments are listed by the **date due**.

PDF and DVI (requires *TeX*<sup>1</sup> software) versions of this page are available for printing.

Most of these assignments are simply exercises designed to prepare you for the quizzes and the written assignments. Those which are to be submitted as written assignments are so labeled. While you may find it helpful to discuss the exercises with others, no collaboration is permitted on the written assignments.

**Final Exam: Thursday, December 18, at 10:30**

### Exam Period Office Hours

**Wed., Dec. 10:**

Bring review questions.

Expect a short quiz.

**Mon., Dec. 8:**

Bring review questions.

**Fri., Dec. 5:**

**Exercises:**

**886:** 45, 46, 55

**896:** 42, 44

**906:** 36, 42

**914:** 29, 31, 32, 35

**922:** 18, 20, 21, 25, 30

**Wed., Dec. 3:**

**Exercises:**

**886:** 44

**896:** 32

**906:** 22, 24, 34, 37, 39

**914:** 17, 19, 21, 25, 27

**922:** 4, 11, 13, 15, 17

**Mon., Dec. 1:**

Read § 13.7

**Exercises:**

**886:** 37, 40, 43

**896:** 19, 26, 29, 31, 35, 37

**906:** 19, 30, 33, 35

**914:** 9, 11, 13, 15

**922:** 1, 3, 5, 7, 9

**Wed, Fri., Nov. 26, 28:**

University Recess

**Mon., Nov. 24:**

Read § 13.6

**Exercises:**

---

<sup>1</sup>URI: <http://www.tug.org/>

**876:** 35, 37, 39, 43  
**885:** 25, 28, 33  
**897:** 17, 25, 27, 28  
**906:** 7, 11, 15, 21, 29, 31  
**914:** 1, 3, 5, 7

**Fri., Nov. 21:**

Read § 13.5

Exercises:

**875:** 19, 27, 29, 31, 33  
**885:** 12, 19, 23, 29, 31  
**896:** 11, 13, 15, 21, 23  
**906:** 1, 5, 9, 23, 25, 27

**Wed., Nov. 19:**

Read § 13.4

Exercises:

**852:** 22, 23, 25  
**875:** 10, 14, 17, 23, 25  
**884:** 7, 9, 13, 17, 21, 27  
**896:** 1, 3, 5, 7, 9

**Fri., Mon. 17:**

Read § 13.3

Exercises:

**841:** 51  
**850:** 45, 47  
**866:** 37, 41, 47, 50, 56, 57  
**875:** 11 – 13, 15, 21  
**884:** 4, 5, 11, 15

**Fri., Nov. 14:**

Read § 13.2

Exercises:

**841:** 42, 43, 45, 47  
**850:** 13, 17, 37, 39, 41  
**866:** 5, 9, 19, 25, 28, 29, 34  
**875:** 3 – 5, 7 – 9

**Wed., Nov. 12:**

Read § 13.1

Exercises:

**820:** 43  
**830:** 32, 35, 41  
**841:** 32, 33, 36, 41  
**850:** 15, 27, 33, 43  
**866:** 3, 7, 11, 17, 21, 23

**Mon., Nov. 10:**

Read § 12.8

Exercises:

**820:** 31, 33  
**830:** 23, 27, 33  
**841:** 23, 27, 29, 31, 37, 39  
**850:** 1 – 3, 5, 7, 11, 19, 23, 25

**Fri., Nov. 7:**

Read § 12.7

Exercises:

**820:** 21, 27, 30  
**830:** 9, 11, 19, 21  
**840:** 3, 5, 7, 9, 11, 13, 15, 19

**Wed., Nov. 5:**

Read § 12.6

**Exercises:**

**811:** 45 – 47  
**820:** 6, 11, 13, 17, 19, 23  
**830:** 5, 6, 13, 15, 17

**Mon., Nov. 3:**

Read § 12.5

**Exercises:**

**769:** 43  
**793:** 53, 58, 60  
**803:** 50, 51, 55  
**811:** 39, 43, 44  
**820:** 3, 5, 7, 9, 15

**Fri., Oct. 31:**

**Exercises:**

**768:** 41  
**793:** 34, 35, 43, 44, 51  
**801:** 31, 32, 35, 37, 49  
**810:** 11, 24, 37, 41, 42

**Wed., Oct. 29:**

Read § 12.4

**Exercises:**

**768:** 34, 39  
**785:** 37, 38  
**793:** 25, 28, 33, 41  
**801:** 6, 7, 13, 17, 27  
**810:** 1, 3, 5, 9

**Mon., Oct. 27:**

Read § 12.3

**Exercises:**

**768:** 22, 24  
**785:** 20, 25, 27  
**793:** 8, 14, 22, 27  
**801:** 1, 3, 5, 11

**Fri., Oct. 24:**

Read § 12.2

**Supplementary Reading:** Handout on Extreme Values (also available as PDF or DVI)

**Exercises:**

**748:** 58  
**759:** 37 – 39, 41  
**767:** 4, 10, 13, 19  
**785:** 14, 15, 17, 18, 21, 23  
**793:** 3, 5, 7, 9, 11, 21, 23

**Wed., Oct. 22:**

Read § 12.1

**Exercises:**

**736:** 50, 59  
**747:** 44, 48, 55

**758:** 23, 26, 29, 36  
**767:** 2, 6, 9, 12  
**785:** 1, 3, 5, 7, 9, 11, 13

**Mon., Oct. 20:**

Read § 11.8

**Exercises:**

**735:** 36, 38, 43, 46  
**747:** 31, 40, 43, 47, 50  
**758:** 9, 15, 17, 20, 21, 27, 35  
**767:** 1, 3, 5, 7, 11

**Fri., Oct. 17:**

Read § 11.7

**Exercises:**

**727:** 47 – 49  
**735:** 6, 10, 14, 18, 24, 30, 44, 45  
**747:** 9, 15, 21, 23, 27, 35, 37, 41  
**758:** 5, 7, 24, 25

**Wed., Oct. 15:**

Midterm Test

**Mon., Oct. 13:**

**Review Session:** Bring questions.

**Fri., Oct. 10:**

Read § 11.6

**Exercises:**

**717:** 51 – 53, 56  
**727:** 24, 30, 32, 46  
**735:** 7, 11, 15, 17, 23, 29  
**747:** 1, 3, 5, 7, 11, 13, 17, 19, 25

**Wed., Oct. 8:**

Be prepared for a **quiz**.

Read § 11.5

**Exercises:**

**708:** 25, 28, 38, 47, 48  
**717:** 35 – 37, 39, 41, 50  
**727:** 18, 19, 23, 29, 31  
**735:** 5, 9, 13

**Mon., Oct. 6:**

University in recess: **no class**.

**Fri., Oct. 3:**

Read § 11.4

**Exercises:**

**672:** 53  
**678:** 20, 28, 34, 35  
**708:** 12 – 18, 24, 35 – 37, 45  
**717:** 4, 6, 8, 10, 12, 14, 18, 20, 23, 25, 29, 33  
**727:** 1 – 3, 5, 7, 15

**Wed., Oct. 1:**

Read §§ 11.2, 11.3

**Exercises:**

**672:** 43, 46 – 48, 52  
**678:** 18, 19, 29, 31

**699:** 5, 6, 9, 15, 20, 23, 26, 27

**708:** 5 – 11, 23

**717:** 3, 5, 7, 9, 11, 17, 19

**Mon., Sep. 29:**

Be prepared for a short quiz.

**Read** § 11.1

**Exercises:**

**622:** 56, 59

**650:** 37, 43, 51, 54, 57

**671:** 17, 19, 23, 27, 30, 31, 39, 41

**678:** 4, 7, 9, 11, 13, 17

**699:** 1, 2

**Fri., Sep. 26:**

**No class.** (A University recess begins at 12:10 on this date.)

**Wed., Sep. 24:**

**Read:** § 10.5

**Exercises:**

**622:** 54, 55

**640:** 53 – 57, 59, 60

**650:** 31, 35, 49, 50

**671:** 1, 3, 6, 7, 10, 13, 21, 25, 26, 29

**678:** 1, 5

**Mon., Sep. 22:**

**Read:** § 10.4

**Exercises:**

**622:** 45 – 47, 50 – 52

**640:** 38 – 40, 42, 43, 45 – 47

**650:** 4, 7, 10, 11, 14, 15, 17, 19

**671:** 9, 11

**Fri., Sep. 19:**

**Read:** §§ 10.1 – 10.2

**Exercises:**

**596:** 52

**605:** 52, 53

**621:** 34, 36, 37, 39, 43

**626:** 13, 34

**640:** 9, 11, 23, 35, 37

**650:** 3, 5, 9, 13

**Wed., Sep. 17:**

**Read:** § 9.7

**Exercises:**

**604:** 47, 50

**614:** 22, 34, 44, 48 – 52

**621:** 19, 22, 26, 29, 33

**626:** 3, 7, 9

**Mon., Sep. 15:**

**Read:** § 9.6

**Exercises:**

**595:** 50, 51

**604:** 8, 10, 22, 26, 28, 32, 38, 41, 45

**614:** 31, 33, 37, 40 – 42, 46

**621:** 5, 8, 9, 11, 14, 17

**Fri., Sep. 12:**

**Read:** § 9.5

**Exercises:**

**595:** 25, 27, 29, 31, 36, 49

**604:** 18, 21, 25, 27, 31, 37

**614:** 1 – 4, 7, 9, 11, 17, 21, 27, 29

**Wed., Sep. 10:**

Be prepared for a **short quiz**.

**Read:** § 9.4

**Exercises:**

**582:** 56

**588:** 42, 43, 46, 47, 51

**595:** 16, 17, 19, 22, 23, 48

**604:** 2, 3, 5, 11, 15, 23

**Mon., Sep. 8:**

**Read:** § 9.3

**Exercises:**

**580:** 30, 34, 39, 42, 53

**587:** 2, 11, 14, 17, 21, 26, 29

**595:** 3, 9, 10, 11, 14, 15

**Fri., Sep. 5:**

**Read:** §§ 9.1–9.2

**Exercises:**

**580:** 2, 5, 9, 15, 17, 21, 25, 37

**Wed., Sep. 3:**

No Assignment

**Tue., Sep. 2:**

First Meeting