# $\begin{array}{c} {\rm Part\ VI} \\ {\rm Stat\ 200\ Homework\ Assignments} \\ {\rm F07} \end{array}$

# Stat 200 Homework Assignments F07

- All assignments must be your individual work; otherwise, points will be deducted. Students
  who wish to work together on homework must request my permission to do so in
  advance.
- Because answer keys are made available after homework is turned in, late homeworks will not be accepted. In a valid emergency, your recitation instructor may make an exception.
- Your homework must be neat, with answers in order as assigned. Show your work (briefly) for calculations and make your answers clear.
- Be sure to write your name on the first page; to be safe, put your initials on subsequent pages. Pages must be stapled together.
- Solutions are placed on file in the Math-Stat Library, 4th floor Thackeray Hall, Monday following the Friday due-date. They are on 2-hour reserve so you can take them out to be copied.
- A Guide to Exercise Topics is available for copying in the Math-Stat Library. If you need practice on certain topics such as Type I and II Errors, or distinguishing sample from population, this guide lists relevant exercises chapter by chapter.

# Homework 1 (31.5 pts.)

## (Chapters 1, 2, 3) due September 7 in lecture

 $1.3\ (.5\ \mathrm{pt.}),\ 1.4\ (.5\ \mathrm{pt.}),\ 1.18\ (1\ \mathrm{pt.}),\ 1.21\ (2\ \mathrm{pts.}),\ 1.25\ (2\ \mathrm{pts.}),\ 1.26\ (.5\ \mathrm{pt.}),\ 2.3\ (.5\ \mathrm{pt.}),\ 2.6\ (.5\ \mathrm{pt.}),\ 2.7\ (1\ \mathrm{pt.}),\ 2.9\ (.5\ \mathrm{pt.}),\ 2.13\ (.5\ \mathrm{pt.}),\ 2.20\ (1.5\ \mathrm{pts.}),\ 2.21\ (1\ \mathrm{pt.}),\ 2.22\ (.5\ \mathrm{pt.}),\ 2.32\ (1\ \mathrm{pt.}),\ 3.11\ (.5\ \mathrm{pt.}),\ 3.21\ (.5\ \mathrm{pt.}),\ 3.21\ (1\ \mathrm{pt.}),\ 3.22\ (1\ \mathrm{pt.}),\ 3.23\ (1\ \mathrm{pt.}),\ 3.24\ (.5\ \mathrm{pt.}),\ 3.25\ (.5\ \mathrm{pt.}),\ 3.26\ (.5\ \mathrm{pt.}),\ 3.32\ (.5\ \mathrm{pt.}),\ 3.34\ (.5\ \mathrm{pt.}),\ 3.36\ (.5\ \mathrm{pt.}),\ 3.47\ (1.5\ \mathrm{pts.}),\ 3.51\ (1.5\ \mathrm{pts.}),\ 3.52\ (1\ \mathrm{pt.}),\ 3.60\ (1.5\ \mathrm{pts.}),\ 3.65\ (.5\ \mathrm{pt.}),\ 3.77\ (1\ \mathrm{pt.})$ 

# Homework 2 (31.5 pts.)

## (Chapters 4, 5 center, spread, shape) due September 14 in lecture

4.5 (.5 pt.), 4.7 (3.5 pts.), 4.16 (2 pts.), 4.17 (a), (b), (c) (1.5 pts.), 4.23 (2 pts.), 4.25 (2 pts.), 5.4 (.5 pt.), 5.6 (1 pt.), 5.8(a), (b), (e), (f), (g) (2.5 pts.), 5.10 (.5 pt.), 5.23 (3 pts.), 5.26(3.5 pts.), 5.32 (a), (b), (c) (1.5 pts.), 5.35 (1 pt.), 5.37 (5.5 pts.), 5.39 (1 pt.)

# Homework 3 (31 pts.)

(Chapters 5 normal, 6) due September 22 in lecture 5.8(c), (d) (2.5 pt.), 5.28 (a), (b) (1 pt.), 5.31 (2 pts.), 5.44 (1 pt.), 5.54 (1.5 pts.), 5.58 (.5 pt.), 5.61 (1.5 pts.), 5.63 (.5 pt.), 5.64 (2 pts.), 5.66 (f), (g), (h) (1.5 pts.), 6.2 (.5 pt.), 6.8 (1.5 pts.), 6.20 (2 pts.), 6.21 (4 pts.), 6.22 (1 pt.), 6.26 (a), (b), (c), (d) (2 pts.), 6.36 (3.5 pts.), 6.39 (3.5 pts.), 6.41 (.5 pt.)

## Homework 4 (34.5 pts.)

#### (Chapters 7, 8) due September 28 in lecture

7.3 (3.5 pts.), 7.7 (1 pt.), 7.13 (2.5 pts.), 7.24 (3 pts.), 7.26 (1.5 pts.), 7.28(a)-(d) (2 pts.), 8.5 (1 pt.), 8.7 (.5 pt.), 8.8 (.5 pt.), 8.10 (3.5 pts.), 8.14 (5.5 pts.), 8.16 (1 pt.), 8.17 (6 pts.), 8.24 (a), (b), (c), (d) (2 pts.), 8.41 (1 pt.)

#### Homework 5 (22 pts.)

#### (Chapters 9, 10 discrete random variables) due October 5 in lecture

9.16 (2 pts.), 9.21 (4 pts.), 9.31 (2 pts.), 9.35 (2.5 pts.), 9.46 (1 pt.), 9.52 (.5 pt.), 9.65 (.5 pt.), 10.3 (4.5 pts.), 10.4 (5 pts.)

# Homework 6 (11 pts.)

## (Chapter 10 binomial) due October 12 in lecture

10.15 (3.5 pts.), 10.20 (4.5 pts.), 10.28 (2 pts.), 10.30 (.5 pt.), 10.32 (.5 pt.)

## Homework 7 (26.5 pts.)

## (Chapters 10 normal, 11 sample proportion) due October 19 in lecture

10.34 (a), (b), (c) (1.5 pts.), 10.38 (2 pts.), 10.40 (b), (c), (d), (e) (2 pts.), 10.42 (1.5 pts.), 10.46 (a), (b) (1 pt.), 10.48 (a), (b), (c) (1.5 pts.), 10.51 (b), (c) (1 pt.), 10.53 (a), (b) (1 pt.), 10.56 (b), (c) (1 pt.), 11.2 (.5 pt.), 11.5 (1.5 pts.), 11.6 (a), (b) (1 pt.), 11.8 (1.5 pts.), 11.15 (3 pts.), 11.24 (1.5 pts.), 11.25 (1 pt.), 11.26 (1.5 pts.), 11.27 (1 pt.), 11.32 (a), (b), (c) (1.5 pts.)

## Homework 8 (49.5 pts.)

## (Chapters 11 sample mean, 12) due October 26 in lecture

 $11.34\ (1.5\ \mathrm{pts.}),\ 11.38\ (1\ \mathrm{pt.}),\ 11.40\ (1\ \mathrm{pt.}),\ 11.49\ (2\ \mathrm{pts.}),\ 11.50\ (1\ \mathrm{pt.}),\ 11.54\ (a),\ (b)\ (1\ \mathrm{pt.}),\ 11.56\ (4\ \mathrm{pts.}),\ 11.63\ (4\ \mathrm{pts.}),\ 11.72\ (a),\ (b),\ (c)\ (1.5\ \mathrm{pts.}),\ 12.1\ (a),\ (b),\ (c),\ (d)\ (2\ \mathrm{pts.}),\ 12.2\ (.5\ \mathrm{pt.}),\ 12.11\ (1\ \mathrm{pt.}),\ 12.12\ (3.5\ \mathrm{pts.}),\ 12.15\ (1.5\ \mathrm{pts.}),\ 12.17\ (2\ \mathrm{pts.}),\ 12.19\ (3.5\ \mathrm{pts.}),\ 12.21\ (2\ \mathrm{pts.}),\ 12.30\ (2.5\ \mathrm{pts.}),\ 12.32\ (2.5\ \mathrm{pts.}),\ 12.36\ (a),\ (b),\ (c)\ (1.5\ \mathrm{pts.}),\ 12.41\ (a),\ (b)\ (1\ \mathrm{pt.}),\ 12.43\ (a),\ (b)\ (1\ \mathrm{pt.}),\ 12.50\ (2\ \mathrm{pts.}),\ 12.52\ (3.5\ \mathrm{pts.}),\ 12.57\ (2\ \mathrm{pts.}),\ 12.70\ (.5\ \mathrm{pts.})$ 

# Homework 9 (19 pts.)

## (Chapter 13 z) due November 2 in lecture

13.2 (1 pt.), 13.6 (1.5 pts.), 13.7 (1.5 pts.), 13.11 (2 pts.), 13.33 (5.5 pts.), 13.37 (a), (b) (1 pt.), 13.42 (.5 pt.), 13.52 (3.5 pts.), 13.60 (1.5 pts.), 13.73 (1 pt.)

## Homework 10 (35 pts.)

#### (Chapters 13 t, 14 paired & two-sample t) due November 9

 $13.26\ (2.5\ \mathrm{pts.}),\ 13.28\ (.5\ \mathrm{pt.}),\ 13.43\ (2\ \mathrm{pts.}),\ 13.45\ (d),\ (e)\ (1\ \mathrm{pt.}),\ 13.54\ (a)\ (.5\ \mathrm{pt.}),\ 13.55\ (2\ \mathrm{pts.}),\ 13.57\ (.5\ \mathrm{pt.}),\ 13.64\ (1.5\ \mathrm{pts.}),\ 13.65\ (2.5\ \mathrm{pts.}),\ 13.70\ (.5\ \mathrm{pt.}),\ 13.81\ (3\ \mathrm{pts.}),\ 14.1\ (1.5\ \mathrm{pts.}),\ 14.5\ (1.5\ \mathrm{pts.}),\ 14.10\ (.5\ \mathrm{pt.}),\ 14.12\ (a)\ (2.5\ \mathrm{pts.}),\ 14.15\ (3\ \mathrm{pts.}),\ 14.18\ (1\ \mathrm{pt.}),\ 14.28\ (3\ \mathrm{pts.}),\ 14.29\ (3\ \mathrm{pts.}),\ 14.48\ (2.5\ \mathrm{pts.})$ 

# Homework 11 (16.5 pts.)

## (Chapter 14 ANOVA F) due Monday, November 26 in lecture

 $14.20 \ (2.5 \ \mathrm{pts.}),\ 14.21 \ (3 \ \mathrm{pts.}),\ 14.23 \ (3 \ \mathrm{pts.}),\ 14.26 \ (2.5 \ \mathrm{pts.}),\ 14.32 \ (1.5 \ \mathrm{pts.}),\ 14.36 \ (1.5 \ \mathrm{pts.}),\ 14.43 \ (2.5 \ \mathrm{pts.})$ 

#### Homework 12 (42 pts.)

#### (Chapters 15, 16) due Monday, December 3 in lecture

15.2 (1 pt.), 15.7 (a), (b), (c), (d), (e), (f) (3 pts.), 15.9 (1.5 pts.), 15.11(a) (2 pts), 15.15 (6 pts.), 15.23 (2.5 pts.), 15.25 (a), (b), (c), (d), (e) (2.5 pts.), 15.29 (1 pt.), 15.39 (2 pts.), 16.8 (1 pt.), 16.11 (.5 pt.), 16.14(a), (b) (1 pt.), 16.15 (1.5 pts.), 16.19 (3 pts.), 16.21 (1 pt.), 16.24 (2.5 pts.), 16.31 (6.5 pts.), 16.33 (1.5 pts.), 16.40 (c), (d), (e), (f) (2 pts.)