

## Written Homework 4 Answers (due Thursday, 17 July 2008)

This assignment has both recommended and required problems. The recommended problems are suggested as extra practice. The required problems are the ones you turn in for the assignment.

### Recommended for extra practice, but do not turn in

#### Section 5-2

Page 211, Problem 14

- a) 0.016
- b) 0.020
- c) Probability in part b) is relevant
- d) Compare your answer in part b) to 0.05 and make a decision

Page 213, Problem 26

Expected value (profit) for Bond A is \$49.40

Expected value (profit) for Bond B is \$26.00

You need to decide which purchase you think is better and why.

#### Section 5-3

Page 223, Problem 34

- a) 0.00000250
- b) 0.00000250
- c) No

Page 224, Problem 36

- a) 0.202
- b) 0.0769
- c) 0.279

#### Section 5-4

Page 229, Problem 18

- a)  $\mu = 142.8$ ;  $\sigma = 11.9$
- b) No

Page 230, Problem 22

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#### Section 6-2

Page 259, Problem 42

- a) 0.5774
- b) 0.6826

**Section 6-3**

Page 267, Problem 20

- a) 0.01%; yes
- b) 99.22 degrees F

Page 268, Problem 22

16.5 in

**Section 6-5**

Page 291, Problem 22

- a) 0.9750
- b) 1329 lb

**Required****Section 6-3**

Page 269, Problem 30

- a) 1087; 22.9
- b) 26.0

**Section 6-4**

Page 279, Problem 10

a)

$\bar{x}$	46.0	51.5	54.0	55.0	57.0	59.5	60.5	62.0	62.5	63.0	64.0	65.0	66.0	68.0
$P(\bar{x})$	1/25	2/25	2/25	2/25	3/25	2/25	2/25	1/25	2/25	2/25	1/25	2/25	2/25	1/25

- b) 59.4
- c) Yes; yes

Page 280, Problem 14

a)

$M$	1.8	2.7	3.6	4.5	5.4	7.2	9.25	10.15	11.95	16.7
$P(M)$	1/16	2/16	1/16	2/16	2/16	1/16	2/16	2/16	2/16	1/16

- b) 7.325
- c) No

**Section 6-5**

Page 289, Problem 14

- a) 0.5793
- b) 0.9772

Page 289, Problem 16

- a) 40.90%
- b) 0.0170