

MATH 1342

Homework 4 (Chapter 4)

Instructions: Answer all questions through the EMCF tab of casa under the assignment named "Homework 4" before the deadline.

There is no "Submit" button. Your answers will be automatically submitted once the deadline arrives.

Assignments will be graded out of 10 points.

Use the following description to answer questions 1, 2, 3, and 4:

A density curve consists of the line segment connecting the points (0,1) and (0.5,1) and the segment connecting (0.5, 1) to the x-axis.

1. Determine the coordinate point where the second segment crosses the x-axis.

- A. (0.5, 0) B. (1.0, 0) C. (1.5, 0)
D. (2.0, 0) E. (2.5, 0)

2. Determine the slope of that segment.

- A. $m = -2$ B. $m = -1.5$ C. $m = -1$
D. $m = -0.5$ E. $m = -0.25$

3. Determine the equation of the line containing this segment.

- A. $y = -1.5x + 2$
B. $y = -x + 1.5$
C. $y = -x + 2$
D. $y = -2x + 1.5$
E. $y = -1.5x + 2.5$

4. Calculate the probability of $P(X > 1)$.

- A. 0.0625 B. 0.125 C. 0.25 D. 0.325 E. 0.5

5. Section 4.2; Problem 6

- A. (a) 95% (b) [41, 73]
B. (a) 95% (b) [49, 65]
C. (a) 68% (b) [49, 65]
D. (a) 68% (b) [41, 73]
E. (a) 99.7% (b) [33, 81]

6. Section 4.3; Problem 16 (a)

- A. 0.2877 B. 0.3969 C. 0.8883 D. 0.0344 E. 0.8599

7. Section 4.3; Problem 16 (c)

- A. 0.9352 B. 0.3969 C. 0.2877 D. 0.0344 E. 0.8599

8. Section 4.3; Problem 16 (f)

- A. 0.9352 B. 0.3969 C. 0.8883 D. 0.0344 E. 0.8599

9. Section 4.4; Problem 6

A. 0.1582

B. 0.0164

C. 0.5260

D. 0.3517

E. 0.6563

10. Section 4.4; Problem 12

A. $\mu_{\hat{p}} = 76$; $\sigma_{\hat{p}} = 0.0872$

B. $\mu_{\hat{p}} = 0.76$; $\sigma_{\hat{p}} = 0.0018$

C. $\mu_{\hat{p}} = 0.76$; $\sigma_{\hat{p}} = 0.0427$

D. $\mu_{\hat{p}} = 0.24$; $\sigma_{\hat{p}} = 0.0427$

E. $\mu_{\hat{p}} = 0.76$; $\sigma_{\hat{p}} = 0.0043$