MATH 1342

Homework 3 (Chapter 3)

Instructions: Answer all questions through the EMCF tab of casa under the assignment named "Homework 3" 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.

1. Section 3.1; Problem 2

    A. 0.35   B. 0.45   C. 0.20   D. 0.55   E. 0.85

2. Section 3.1; Problem 18

    A. Mean: 0.5; Variance: 0.64; Standard Deviation: 0.8

    B. Mean: 0.25; Variance: 1.04; Standard Deviation: 1.08

    C. Mean: 0.4; Variance: 1.04; Standard Deviation: 1.08

    D. Mean: 0.3; Variance: 1.07; Standard Deviation: 1.14

    E. Mean: 0.4; Variance: 1.04; Standard Deviation: 1.02

3. Section 3.1; Problem 20

    A. Mean: 3.4; Variance: 4.16; Standard Deviation: 2.08

    B. Mean: 2.0; Variance: 2.08; Standard Deviation: 4.33

    C. Mean: 3.8; Variance: 2.08; Standard Deviation: 1.44

    D. Mean: 3.8; Variance: 4.16; Standard Deviation: 2.04

    E. Mean: 3.8; Variance: 4.16; Standard Deviation: 17.31

Use the following Probability Distribution Table to answer questions 4, 5, and 6.

In the following distribution, $P(X < 2) = 0.35$, and expected value is 1.9

X	0	1	2	3	4
P(X)	0.10	A	0.35	B	C

4. Use the fact that P(X < 2) = 0.35 to find the value of A.

A. 0.00   B. 0.25   C. 0.15   D. 0.10   E. 0.05

5. Determine the value of B. *(Hint: you will want to create two equations: the first using the fact that the total probability is equal to 1.0, and the second using the given expected value, then solve by the substitution method.)*

A. 0.00   B. 0.25   C. 0.15   D. 0.10   E. 0.05

6. Determine the value of C.

A. 0.00   B. 0.25   C. 0.15   D. 0.10   E. 0.05

7. Section 3.2; Problem 12 (a)

        A. 0.994091   B. 0.014798   C. 0.005909

                D. 0.985214   E. 0.176917

8. Section 3.2; Problem 12 (b)

        A. 0.979305   B. 0.036964   C. 0.963036

                D. 0.020695   E. 0.073929

9. Section 3.2; Problem 12 (c)

        A. Mean: 5; Standard Deviation: 2.5

        B. Mean: 10; Standard Deviation: 2.236

        C. Mean: 5; Standard Deviation: 1.581

        D. Mean: 10; Standard Deviation: 5

        E. Mean: 10; Standard Deviation: 2.5

10. Section 3.3; Problem 12 (c)

    A. 0.2592   B. 0.3370   C. 0.9533   D. 0.0311   E. 0.40