Math 2311

Written Homework 3 (Sections 1.1-3.3)

Name: _____ PeopleSoft ID: _____

Instructions:

- Homework with OCR is accepted through email or in person. Homework must be submitted through CourseWare BLACKBOARD the deadline.
- Print out this file and write neatly and complete the problems.
- Write in black ink or dark pencil or type your solutions in the space provided. Your work must be legible for full credit.
- Submit the assignment at http://www.math.uh.edu, under "Assignments" and choose hw4.
- Total possible points: 20

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1. Section 1.1, Problem 2:

x	1	2	3	4	5	6	7
$p(x)$	.05	.10	.15	.15	.15	.15	.15

$P(\text{at least } 4)$

$p(4) + p(5) + p(6) + p(7)$

$.15 + .15 + .15 + .15 = .55$

$\boxed{P(\text{at least } 4) = .55}$

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2. Section 1.1, Problem 10:

$P(A \cup B)$	.7	.8	.5
$P(A \cap B)$	.3	.4	.1

$P(A \cup B) = P(A) + P(B) - P(A \cap B)$

$P(A \cup B) = P(A) + P(B) - P(A \cap B)$

$.7 = P(A) + .8 - .3$

$P(A) = .7 - .8 + .3$

$P(A) = .2$

$.8 = .2 + P(B) - .3$

$P(B) = .8 - .2 + .3$

$P(B) = .9$

$P(A \cap B') = P(A) - P(A \cap B)$

$= .2 - .3$

$= -.1$

$P(A' \cap B') = 1 - P(A \cup B)$

$= 1 - .7$