

HW 2-3 (Due Sep. 6, 2016)

Name:

Print then work on it directly. Staple HW 2-1, 2-2, 2-3 together.

**Problem 1**

**2.96** If  $A$  and  $B$  are independent events with  $P(A) = .5$  and  $P(B) = .2$ , find the following:

**a**  $P(A \cup B)$

**b**  $P(\bar{A} \cap \bar{B})$

**c**  $P(\bar{A} \cup \bar{B})$

## Problem 2

- 2.129** Males and females are observed to react differently to a given set of circumstances. It has been observed that 70% of the females react positively to these circumstances, whereas only 40% of males react positively. A group of 20 people, 15 female and 5 male, was subjected to these circumstances, and the subjects were asked to describe their reactions on a written questionnaire. A response picked at random from the 20 was negative. What is the probability that it was that of a male?