

## Assignment 1

In a recent meeting of union members supporting Joe Royal for union president, Royal's leading supporter said "chances are good" that Royal will defeat the single opponent facing him in the election.

- (a) What are the "events" that could take place with regard to the election?
- (b) Is your list collectively exhaustive? Are the events in your list mutually exclusive?
- (c) Disregarding the supporter's comments and knowing no additional information, what probabilities would you assign to each of your events?

Southern Bell is considering the distribution of funds for a campaign to increase long-distance calls within North Carolina. The following table lists the markets that the company considers worthy of focused promotions:

Market Segment	Cost of Special Campaign Aimed at Group
Minorities	\$350,000
Businesspeople	\$550,000
Women	\$250,000
Professionals and white-collar workers	\$200,000
Blue-collar workers	\$250,000

There is up to \$800,000 available for these special campaigns.

- (a) Are the market segments listed in the table collectively exhaustive? Are they mutually exclusive?
- (b) Make a collectively exhaustive and mutually exclusive list of the possible events of the spending decision.
- (c) Suppose the company has decided to spend the entire \$800,000 on special campaigns. Does this change your answer to part (b)? If so, what is your new answer?