

Math 1313
Homework 19
Section 6.3

Use the following problems to answer questions 1 – 3.

A group of 350 people includes 167 play the flute, 182 play the clarinet, and 86 both the flute and the clarinet. A person is selected at random.

1. What is the probability that he/she plays the clarinet but not the flute?
 - a. 0.1113
 - b. 0.2305
 - c. 0.1660
 - d. 0.8887
 - e. 0.2743

2. What is the probability that he/she plays exactly two of these types of instruments?
 - a. 0.2943
 - b. 0.2457
 - c. 0.2075
 - d. 0.7879
 - e. 0.6213

3. What is the probability that he/she plays none of these instruments?
 - a. 0.2143
 - b. 0.3458
 - c. 0.5151
 - d. 0.2486
 - e. 0.4851

Use the following problems to answer questions 4 – 5.

Let E and F be two events of an experiment with sample space S . Suppose:
 $P(E) = 0.66, P(F) = 0.54$ and $P(E \cap F) = 0.28$

4. Find $P(E \cup F)$.
 - a. 0.9200
 - b. 1.0000
 - c. 0.8200
 - d. 0.6800
 - e. 1.1000

5. Find $P(E^c \cup F^c)$.
 - a. 0.4400
 - b. 0.7200
 - c. 0.5600
 - d. 0.4000
 - e. 0.4600

6. The choices for problem number 20 part f from the book are given below.
 - a. 0.670
 - b. 0.640

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- c. 0.240
- d. 0.720
- e. 0.110

7. The choices for problem number 20 part g from the book are given below.

- a. 0.870
- b. 0.680
- c. 0.280
- d. 0.980
- e. 0.750

8. The choices for problem number 26 part c from the book are given below.

- a. 0.851
- b. 0.649
- c. 0.368
- d. 0.492
- e. 0.187

9. The choices for problem number 30 part e from the book are given below.

- a. 0.116
- b. 0.380
- c. 0.794
- d. 0.861
- e. 0.567

10. The choices for problem number 30 part f from the book are given below.

- a. 0.096
- b. 0.380
- c. 0.120
- d. 0.904
- e. 0.851