

Find the indicated probability.

- 1) A survey resulted in the sample data in the given table. If one of the survey respondents is randomly selected, find the probability of getting someone who lives in a flat. Round to the nearest thousandth, if necessary.

Type of accommodation	Number
House	690
Flat	387
Apartment	543
Other	605

Answer the question, considering an event to be "unusual" if its probability is less than or equal to 0.05.

- 2) A multiple choice question has 19 possible answers, only one of which is correct. Is it "unusual" to answer a question correctly if a random guess is made?
- 3) If you drew one card from a standard deck, would it be "unusual" to draw a 6?
- 4) If you drew one card from a standard deck, would it be "unusual" to draw an eight of clubs?

Use the relative frequency approach to estimate the probability of the event.

- 5) Of 1037 people who came into a blood bank to give blood, 330 people had high blood pressure. Estimate the probability that the next person who comes in to give blood will have high blood pressure.
- 6) In a certain class of students, there are 12 boys from Wilmette, 5 girls from Winnetka, 7 girls from Wilmette, 5 boys from Glencoe, 2 boys from Winnetka and 8 girls from Glencoe. If the teacher calls upon a student to answer a question, what is the probability that the student will be a boy?

Find the indicated probability.

- 7) Based on meteorological records, the probability that it will snow in a certain town on January 1st is 0.342. Find the probability that in a given year it will not snow on January 1st in that town.
- 8) The table below describes the smoking habits of a group of asthma sufferers.

	Occasional Regular Heavy				Total
	Nonsmoker	smoker	smoker	smoker	
Men	382	37	60	34	513
Women	403	31	74	37	545
Total	785	68	134	71	1058

If one of the 1058 people is randomly selected, find the probability that

- a) the person is a man or a heavy smoker.
- b) The person is a nonsmoker or an occasional smoker.
- 9) A card is drawn from a well-shuffled deck of 52 cards. What is the probability of drawing a face card or a 4?
- 10) In one town, 51% of all voters are Democrats. If two voters are randomly selected for a survey, find the probability that they are both Democrats.
- 11) Find the probability of correctly answering the first 2 questions on a multiple choice test if random guesses are made and each question has 6 possible answers.

Answer Key

Testname: CHAPTER4

- 1) 0.174
- 2) No
- 3) No
- 4) Yes
- 5) 0.318
- 6) 0.487
- 7) 0.658
- 8) 0.520
- 9) $\frac{4}{13}$
- 10) 0.260
- 11) $\frac{1}{36}$