

Section 1.4 Extra Practice

1. What are the odds of obtaining success in each experiment?
 - a) rolling a die and the number facing up is 4
 - b) choosing a vowel from the letters in G-R-A-D-U-A-T-I-O-N
 - c) cutting a deck of cards and getting a red card
2. What result would you expect from each experiment?
 - a) You roll a die 30 times. How many times would you roll a 4?
 - b) You choose a letter from the letters in G-R-A-D-U-A-T-I-O-N 40 times. How many vowels would you get?
 - c) You cut a deck of cards 20 times. How many red cards would you get?
3. Calculate each probability, to the nearest percent.
 - a) 1 in 25 chance of being the class representative
 - b) 1 in 90 chance of being born a twin
 - c) 1 in 200 chance of having your identity stolen
 - d) 1 in 576 000 chance of being struck by lightning
4. Calculate the success rate of each result.
 - a) You want 4s. You roll a die 40 times and get a 4 six times.
 - b) You want red cards. You cut a deck of cards 30 times and get 18 red cards.
 - c) You want vowels. You choose a letter in G-R-A-D-U-A-T-I-O-N 50 times and get 28 vowels.
5. Scott is laying laminate flooring. He needs 80 boards of laminate. About 15% of the boards are not usable. How many boards should Scott have available?
6. Customers reported an average of 15 problems per 100 vehicles last year.
 - a) What percent of vehicles have a reported problem?
 - b) What percent of vehicles should not have a reported problem?
 - c) If 1000 new vehicles are delivered to St. John's this month, is it likely that all 1000 will not have a reported problem? Explain.
 - d) According to the theoretical probability, how many of the 1000 vehicles should have a reported problem?



- 7.** Match each statement in parts a) to e) with one of the following:
- A** It will happen.
 - B** It is likely to happen.
 - C** It is equally likely and unlikely to happen.
 - D** It is not likely to happen.
 - E** It will not happen.
- a)** It will snow in July in St. John's.
- b)** The sun will set this evening.
- c)** You will get a total of 13 the first time you roll two dice.
- d)** You cut a deck of cards and show a red card.
- e)** The next person you text, you have texted before.
- 8.** Four gyms are having contests to win a free membership. The chances of winning are different for each gym.
- Fit Bodies: 1 in 25 probability of winning
- Great Fit: 70 in 75 probability of not winning
- Life Fitness: 1 to 25 odds of winning
- World Gym: 70 to 75 odds of not winning
- Which contest gives you the greatest chance of winning?
- 9.** A store that sells electrical receptacle plates claims that about 2% of the plates they sell arrive at the store damaged. The plates are sold in packs of 10.
- a)** On average, there is approximately one damaged plate in how many packs?
- b)** A customer purchases 8 packs of plates. Predict how many plates will be damaged.

