
Student Text *UNIT 19 Probability of One Event* Answers

19.1 Probabilities

1. (a) 0 (b) about 250 (c) about 250
2. (a) 50 (b) 50 (c) 0
3. (a) Impossible (b) Unlikely (c) Likely or Unlikely
(d) Likely or Unlikely (e) Unlikely (f) Likely (g) Likely
5. (a) 10 (b) 20 (c) 1000 (d) 600
6. About 900
7. (a) about 1500 (b) about 250
8. (a) 50 (b) 50 (c) 25 (d) 25

19.2 Straightforward Probability

1. (a) 0.1 (b) $\frac{1}{4}$ (c) $\frac{1}{2}$ (d) $\frac{4}{5}$
2. (a) 0.2 (b) 0.4
3. 0.98
4. $\frac{4}{5}$
5. (a) $\frac{4}{7}$ (b) not to rain
6. 0.99
7. (a) $\frac{2}{5}$ (b) 12
8. (a) 0.6 (b) 0.9 (c) 0.1
9. (a) $\frac{9}{20}$ (b) $\frac{10}{11}$ (c) $\frac{9}{13}$
10. No ; there are other eye colours
11. 0.15
12. (a) *C* (b) *B*
13. (a) near to 0 (b) near to 1

Student Text *UNIT 19 Probability of One Event* Answers

19.3 Finding Probabilities Using Relative Frequency

4. $\frac{1}{4}$

5. (a) $\frac{4}{5}$

6. (a) $\frac{2}{7}, \frac{7}{10}, \frac{1}{4}, \frac{1}{5}, \frac{1}{3}, \frac{2}{3}$ (b) Andrew (c) Rachel (d) Connor

7. (a) $\frac{3}{8}$ (b) $\frac{5}{12}$ (c) $\frac{5}{24}$

8. (a) $\frac{4}{5}$ (b) 96

19.4 Determining Probabilities

1. (a) $\frac{1}{4}$ (b) $\frac{1}{4}$ (c) $\frac{1}{13}$ (d) $\frac{1}{13}$ (e) $\frac{4}{13}$

2. (a) $\frac{13}{54}$ (b) $\frac{13}{54}$ (c) $\frac{2}{27}$ (d) $\frac{2}{27}$ (e) $\frac{8}{27}$

3. (a) $\frac{1}{6}$ (b) $\frac{1}{6}$ (c) $\frac{1}{2}$ (d) $\frac{1}{2}$

4. (a) $\frac{1}{8}$ (b) $\frac{1}{8}$ (c) $\frac{1}{2}$ (d) $\frac{5}{8}$ (e) $\frac{1}{4}$

5. $\frac{3}{8}$

6. (a) $\frac{2}{5}$ (b) $\frac{4}{5}$ (c) $\frac{1}{5}$ (d) $\frac{4}{5}$ (e) $\frac{9}{49}$ (f) $\frac{39}{49}$ (g) $\frac{10}{49}$

7. (a) $\frac{9}{25}$ (b) $\frac{6}{25}$ (c) $\frac{3}{5}$ (d) $\frac{16}{25}$

8. (a) $\frac{2}{5}$ (b) $\frac{1}{5}$ (c) 1 (d) $\frac{4}{5}$

9. (a) $\frac{2}{5}$ (b) $\frac{1}{5}$ (c) $\frac{1}{5}$

10. (a) $\frac{3}{10}$ (b) $\frac{2}{9}$ (c) $\frac{1}{8}$ (d) $\frac{3}{8}$

11. (a) $\frac{7}{30}$ (b) $\frac{23}{30}$

Student Text *UNIT 19 Probability of One Event* Answers

19.4

12. (a) $\frac{1}{2}$ (b) $\frac{1}{6}$

13. (a) $\frac{1}{200}$ (b) 20

14. (a) $\frac{3}{10}$ (b) $\frac{4}{5}$

15. (a) Mint (b) $p(\text{mint}) = \frac{2}{3}$, $p(\text{toffee}) = \frac{1}{4}$, $p(\text{pen}) = \frac{1}{12}$ (c) $\frac{1}{12}$ (d) 0