

Use the two-way frequency table to evaluate. Write your answer as a reduced fraction.

	0 - 14 years old	15 years old	16 - 17 years old	18+ years old	Total
Does not have a driver license	432	124	81	31	668
Has a driver license	0	0	230	102	332
Total	432	124	311	133	1000

1. Determine the probability that a randomly selected person will have a driver license.	2. Determine the probability that a randomly selected person will have a driver license, given that he or she is 18+ years old.	3. Determine the probability that a person selected at random will be an 18+-year-old that has a driver license.
4. Determine the probability that a person selected at random will be 15 years old.	5. Determine the probability that a randomly selected person will be 15 years old, given that he or she does not have a driver license.	6. Determine the probability that a person selected at random will be a 15-year-old that has a driver license.

Use the two-way frequency table to evaluate problems 7-12. Write your answer as a reduced fraction.

	Plays no sports	Plays one sport	Plays more than one sport	Total
Watches sports	35	31	142	208
Does not watch sports	29	15	48	92
Total	64	46	190	300

7. Determine the probability that a randomly selected person watches sports, given that he or she plays no sports.	8. Determine the probability that a randomly selected person plays one sport but does not watch sports.	9. Determine the probability that a person selected at random watches sports.
10. Determine the probability that a person selected at random watches sports and plays more than one sport.	11. Determine the probability that a randomly selected person plays more than one sport, given that he or she does not watch sports.	12. Determine the probability that a person selected at random plays more than one sport.

Use the two-way frequency table to evaluate problems 13-18. Write your answer as a reduced fraction.

	Period 1	Period 2	Period 3	Period 4	Period 5	Total
Missing no quizzes or tests	31	26	0	26	29	112
Missing one quiz or one test	1	6	0	3	5	15
Missing more than one quiz or test	0	0	0	0	0	0
Total	32	32	0	29	34	127

13. Determine the probability that a randomly selected person is missing no quizzes or tests.	14. Determine the probability that a randomly selected person is in period 2 and is missing one quiz or test.	15. Determine the probability that a person selected at random is missing no quizzes or tests, given that he or she is in period 1.
16. Determine the probability that a person selected at random is in period 5.	17. Determine the probability that a randomly selected person is in period 5, given that he or she is missing one or quiz or one test.	18. Determine the probability that a person selected at random is missing more than one quiz or test.

Determining Probability using Two-way Frequency Tables Answers

1. $\frac{332}{1000} = \frac{83}{250}$	2. $\frac{102}{133}$	3. $\frac{102}{1000} = \frac{51}{500}$	4. $\frac{124}{1000} = \frac{31}{250}$	5. $\frac{124}{668} = \frac{31}{167}$	6. $\frac{0}{1000} = \frac{0}{1}$
7. $\frac{35}{64}$	8. $\frac{15}{300} = \frac{1}{20}$	9. $\frac{208}{300} = \frac{52}{75}$	10. $\frac{142}{300} = \frac{71}{150}$	11. $\frac{48}{92} = \frac{12}{23}$	12. $\frac{190}{300} = \frac{19}{30}$
13. $\frac{112}{127}$	14. $\frac{6}{127}$	15. $\frac{31}{32}$	16. $\frac{34}{127}$	17. $\frac{5}{15} = \frac{1}{3}$	18. $\frac{0}{127} = \frac{0}{1}$