Day 11 HW – 13.5 Two Way Tables
p. 853 6-8 ,14-16, p. 871 #26-29 , 873 #30-32

For Exercises 6–11, use the two-way frequency table below to find the probability of each event. See Problems 1 and 2.

6. P(7th-grade girl)

7. P(8th-grade boy)

8. P(6th-grade girl)

9. P(girl | 7th-grade)

10. P(6th-grade | boy)

11. P(8th-grade | girl)

Attendance at Soccer Camp

	6th Graders	7th Graders	8th Graders	Totals
Boys	7	6	10	23
Girls	8	7	12	27
Totals	15	13	22	50

Academic Competition **The table at the right shows numbers of participants in an academic competition. Use this information for Exercises 14–18.**

14. What is P(female)?

15. What is P(freshman)?

16. What is P(female freshman)?

17. What is P(female | freshman)?

18. What is P(freshman | female)?

	Male	Female	Totals
Freshmen	3	5	8
Sophomores	6	4	10
Juniors	7	5	12
Seniors	4	6	10
Totals	20	20	40

p. 871 #26-29

Exercises

Suppose A and B are independent events, $P(A) = 0.46$, and $P(B) = 0.25$. Find each probability.

26. $P(A \text{ and } B)$

27. $P(A \text{ or } B)$

28. A bag contains 3 red marbles, 4 green marbles, 5 blue marbles, and 4 yellow marbles. If a marble is selected at random, what is the probability that it is red or green?

29. Writing Explain why the formula $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$ can be used for any two events A and B.

p. 873 #30-32

Exercises

Studying Use the two-way frequency table to answer each question.

	Studied	Did not study	Totals
Passed	19	7	26
Failed	1	4	5
Totals	20	11	31

30. Did more students choose to study or to not study for the quiz?

31. What is the relative frequency of students who studied for the quiz and passed?

32. What is the relative frequency of students who did not study and failed?