# Lesson 3 Practice Problems

1. Which value would best fit in the missing cell to suggest there is no evidence of an association between the variables?

|  | digital watch | analog watch |
|---|---|---|
| **displays the date** | 54 | 27 |
| **no date display** | 18 | |

A. 9

B. 18

C. 27

D. 54

2. The relative frequency table shows the percentage of each type of art (painting or sculpture) in a museum that would classify in the different styles (modern or classical). Based on these percentages, is there evidence to suggest an association between the variables? Explain your reasoning.

|            | modern | classical |
|------------|--------|-----------|
| paintings  | 41%    | 59%       |
| sculptures | 38%    | 62%       |

3. An automobile dealership keeps track of the number of cars and trucks they have for sale, as well as whether they are new or used. Based on the data, does there appear to be an association between the type of automobile and whether it is new or used? Explain your reasoning.

|  | car | truck |
|---|---|---|
| **new** | 812 | 233 |
| **used** | 422 | 51 |

4. A survey is given to 1,432 people about whether they take daily supplemental vitamins and whether they eat breakfast on a regular basis. The results are shown in the table.

|  | take daily vitamins | no daily vitamins |
|---|---|---|
| **eat breakfast** | 384 | 476 |
| **no breakfast** | 268 | 304 |

Create a relative frequency table that shows the percentage of the entire group that is in each cell.

(From Unit 3, Lesson 2.)

5. Several college students are surveyed about their college location and preferred locations for a spring break trip.

| | college near the coast | college away from the coast |
|---|---|---|
| **beach break** | 37 | 54 |
| **ski break** | 24 | 36 |

a. What percentage of people who prefer to spend spring break at the beach go to a college away from the coast?

b. What percentage of people who prefer to spend spring break skiing go to a college away from the coast?

(From Unit 3, Lesson 2.)

6. A group of people are surveyed about whether they prefer to bike or run to exercise, and whether they prefer summer or winter weather. The results are in the table.

| | bike | run |
|---|---|---|
| **summer** | 108 | 212 |
| **winter** | | 98 |

What value could go in the blank cell so that the percentage of people who like to bike and also prefer winter weather is 10%?

(From Unit 3, Lesson 2.)