### Lesson 2 Practice Problems

1. A teacher asks their students whether they studied for a quiz, then scores the quiz. A relative frequency table displays some of the information they collected.

|  |  |  |
| --- | --- | --- |
|  | * studied | * did not study |
| * passed quiz | * 86% | * 14% |
| * failed quiz | * 46% | * 54% |

* What does the 86% represent?

1. The accessory choices of 143 people are recorded in the table.

|  |  |  |
| --- | --- | --- |
|  | * wearing a watch | * no watch |
| * wearing a belt | * 62 | * 32 |
| * no belt | * 29 | * 20 |

* Create a relative frequency table that could be used to show the percentages of belt wearers who wear a watch or not, as well as the percentages of people without belts who wear a watch or not.

1. Scientists give two different treatments to people who have the flu and determine if their health improves. The results for the test are in the two-way table.

|  |  |  |
| --- | --- | --- |
|  | * treatment 1 | * treatment 2 |
| * improved health | * 23 | * 25 |
| * no improvement | * 17 | * 35 |

* 1. What percentage of people receiving treatment 1 had improved health?
  2. What percentage of people receiving treatment 2 had improved health?

1. A group of people are surveyed about whether they have any brothers or sisters or are an only child, and whether they have any pets.

|  |  |  |
| --- | --- | --- |
|  | * have sibling | * only child |
| * have pets | * 82 | * 105 |
| * no pets | * 141 |  |

* Which value could go in the blank cell so that the percentage of only children that have no pets is 37.5%?
  1. 63
  2. 82
  3. 175
  4. 205

1. Many adults are selected at random to respond to a survey about their favorite season and whether they have allergies or not. The two-way table summarizes the results from the survey.

|  |  |  |
| --- | --- | --- |
|  | * allergies | * no allergies |
| * winter | * 43 | * 21 |
| * spring | * 12 | * 13 |
| * summer | * 35 | * 33 |
| * fall | * 33 | * 35 |

* 1. Which season is the least popular in this group?
  2. How many more people have allergies than people without allergies in this group?
  3. How many people were surveyed in this group?
* (From Unit 3, Lesson 1.)

1. A random sample of people are asked about their preferences regarding home decoration and their interest in fashion. Complete the two-way table so it has the characteristics listed.
   * 150 people responded to the survey.
   * 70% of the responders do not pay attention to fashion.
   * 33 of the responders who prefer neutral decorations also do not pay attention to fashion.
   * 20 of the responders who pay attention to fashion also prefer colorful decorations in their home.

|  |  |  |
| --- | --- | --- |
|  | * prefer colorful decorations | * prefer neutral decorations |
| * pay attention to fashion |  |  |
| * do not pay attention to fashion |  |  |

* (From Unit 3, Lesson 1.)



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