Lesson 26: Percent of a Quantity

Classwork

**Example 1**

Five of the girls on Alden Middle School’s soccer team are seventh-grade students. Find the percentage of seventh graders on the team. Show two different ways of solving for the answer. One of the methods must include a diagram or picture model.

**Example 2**

Of the girls on the Alden Middle School soccer team, also play on a travel team. How many of the girls on the middle school team also play on a travel team?

**Example 3**

The Alden Middle School girls’ soccer team won of its games this season. If the team won games, how many games did it play? Solve the problem using at least two different methods.

Exercises

1. There are animal exhibits at the local zoo. What percent of the zoo’s exhibits does each animal class represent?

|  |  |  |
| --- | --- | --- |
| **Exhibits by Animal Class** | **Number of Exhibits** | **Percent of the Total**  **Number of Exhibits** |
| **Mammals** |  |  |
| **Reptiles & Amphibians** |  |  |
| **Fish & Insects** |  |  |
| **Birds** |  |  |

1. A sweater is regularly . It is off the original price this week.
   1. Would the amount the shopper saved be considered the part, whole, or percent?
   2. How much would a shopper save by buying the sweater this week? Show two methods for finding your answer.
2. A pair of jeans was off the original price. The sale resulted in a discount.
   1. Is the original price of the jeans considered the whole, part, or percent?
   2. What was the original cost of the jeans before the sale? Show two methods for finding your answer.
3. Purchasing a TV that is off will save .
   1. Name the different parts with the words: PART, WHOLE, PERCENT.

off Original Price

* 1. What was the original price of the TV? Show two methods for finding your answer.

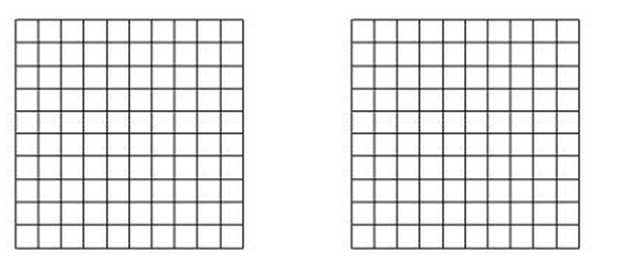
Lesson Summary

Models and diagrams can be used to solve percent problems. Tape diagrams, grids, double number line diagrams, and others can be used in a similar way to using them with ratios to find the percent, the part, or the whole.

Problem Set

1. What is of ? Create a model to prove your answer.
2. If of a number is , what was the original number?
3. In a grid that represents , one square represents \_\_\_ .

Use the grids below to represent and of .



of is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. of is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.