

Lesson 27: Solving Percent Problems

Classwork

Example 1

Solve the following three problems.

Write the words PERCENT, WHOLE, PART under each problem to show which piece you were solving for.

$$60\% \text{ of } 300 = \underline{\hspace{2cm}} \quad 60\% \text{ of } \underline{\hspace{2cm}} = 300 \quad 60 \text{ out of } 300 = \underline{\hspace{2cm}}\%$$

How did your solving method differ with each problem?

Exercise 1

Use models, such as 10×10 grids, ratio tables, tape diagrams, or double number line diagrams, to solve the following situation.

Priya is doing her back-to-school shopping. Calculate all of the missing values in the table below, rounding to the nearest penny, and calculate the total amount Priya will spend on her outfit after she received the indicated discounts.

| | Shirt (25% discount) | Pants (30% discount) | Shoes (15% discount) | Necklace (10% discount) | Sweater (20% discount) |
|--------------------|---------------------------------|---------------------------------|---------------------------------|------------------------------------|-----------------------------------|
| Original Price | \$44 | | | \$20 | |
| Amount of Discount | | \$15 | \$9 | | \$7 |

What is the total cost of Priya's outfit?

Lesson Summary

Percent problems include the part, whole, and percent. When one of these values is missing, we can use tables, diagrams, and models to solve for the missing number.

Problem Set

1. Mr. Yoshi has 75 papers. He graded 60 papers, and he had a student teacher grade the rest. What percent of the papers did each person grade?
2. Mrs. Bennett has graded 20% of her 150 students' papers. How many papers does she still need to finish grading?