Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Core: \_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Percent Study Guide**

# Writing percents as fractions in simplest form

“Percent” means for each 100.

36% = 36/100

To write 36/100 in simplest form, divide both 36 and 100 by their greatest common factor (GCF).

Factors of 36: 1, 2, 3, **4**, 6, 9, 12, 18, 36

Factors of 100: 1, 2, **4**, 5, 10, 20, 25, 50, 100

The GCF of 36 and 100 is 4. To simplify 36/100, divide both by 4.

36 divided by 4 = 9

100 divided by 4 = 25

36/100 simplifies to 9/25.

**Your turn! Write each percent as a fraction in simplest form.**

1. **45% 2) 25% 3) 12% 4) 50%**

# Writing percents as Decimals

First, write the percent as a hundredth fraction.

Example 1: 45% = 45/100

Next, think how you would write 45 hundredths as a decimal.

45/100 = 0.45

Example 2: 126% = 1 26/100 = 1.26

**Your turn! Write these percents as decimals.**

1. **15% 2) 79% 3) 164% 4) 1.56%**

# Writing Decimals as Percents

Multiply the decimal number times 100. This is the percent.

Example 1: Change 0.34 to a percent.

0.34 x 100 = 34%

Example 2: Change 5.68 to a percent.

5.68 x 100 = 568%

Example 3: Change 0.345 to a percent.

0.345 x 100 = 34.5%

**Your turn! Change these decimals to percents.**

1. 0.26 2) 0.356 3) 2.874 4) 0.5

# Finding the percent of a number

Use the percent proportion!

**part (is) = number in front of the %**

**total (of) 100**

Example: What is 40% of 60

*p* = 40 60 x 40 divided by 100 = 24

60 100 40% of 60 is 24

**Your turn! Use the percent proportion to find the percent of the number.**

1. What is 60% of 90? 3) What is 25% of 150?
2. An art museum received a collection of 92 African American paintings. The museum can display 40 of the paintings on the first floor. What percent of the paintings can be displayed on the first floor?

# Using the percent proportion to find the total amount

Sometimes we know the part of a number and the percent, and we want to find the total. Again, use the percent proportion. This time we are solving for the total.

Example: Addie saved 20% on a new dress. If she saved $6, what was the original price of the dress?

$6 = 20 6 x 100 divided by 20 = 30. The original price of the dress was $30.

*t* 100

**Your turn!** **Use the percent proportion to find the totals.**

1. 25% of what number is 2?
2. Sixteen (16) pizzas were eaten at a party. This is 40% of the pizzas that were ordered. How many pizzas were ordered for the party?