

Name: Key

Date: \_\_\_\_\_

## Review for Percent Test

### Converting Percents, Decimals, & Fractions:

Complete the missing information from the table below. Simplify all fractions.!

	Fraction	Decimal	Percent
1.	$\frac{55}{100} = \frac{11}{20}$	.55	55%
2.	$\frac{96}{100} = \frac{24}{25}$	.96	96%
3.	$\frac{4}{5}$	.8	80%
4.	$\frac{1}{100}$	.01	1%
5.	$\frac{21}{100}$	.21	21%
6.	$\frac{185}{100} = 1\frac{17}{20}$	1.85	185%
7.	$\frac{7}{9}$	$\overline{.7}$	77. $\overline{7}$ %
8.	$\frac{125}{1000} = \frac{1}{8}$	.125	12.5%

### Comparing Percents, Decimals, & Fractions:

9. Compare the following with a < or >.

$$4\frac{1}{4} > 410\% \qquad \frac{3}{8} > 37\% \qquad 43.5\% > .3599$$

$$4.25 \quad 4.10 \qquad .375 \quad .370 \qquad .435 \quad .3599$$

### Ordering Percents, Decimals, & Fractions:

10. Order the following from least to greatest. Put back in original form!

$$33\%, \frac{1}{3}, \frac{3}{100}, 0.3$$

$$.33 \quad \overline{.3} \quad .03 \quad .3$$

$$.03, .3, .33, \overline{.3}$$

$$\frac{3}{100}, .03, 33\%, \frac{1}{3}$$

3 Scenarios: Write and solve equations to answer the questions. Show your work!

Scenario 1: Solving for the part

$$x = .16 \cdot 85$$

Find 16% of 85.

$$x = .16 \cdot 85$$

$$x = 13.6$$

Scenario 2: Solving for the whole

$$.08 \cdot x = 28$$

8% of what number is 28?

$$\frac{.08x = 28}{.08 \quad .08}$$

$$x = 350$$

Scenario 3: Solving for the percent

$$x \cdot 80 = 15$$

What percent of 80 is 15?

$$\frac{80x = 15}{80 \quad 80}$$

$$x = .1875 = 18.75\%$$

Tip:

At a restaurant, your dinner costs \$45.95. If you want to leave a 20% tip, how much should you leave? What is the total amount of money you spent?

$$\text{tip: } .20(45.95) = \$9.19$$

$$\text{total: } 45.95 + 9.19 = \$55.14$$

Commission:

A realtor sells a house for \$750,000. If she earns 4% commission on her sales, how much will she make?

$$\text{commission: } .04(750,000) = \$30,000$$

## Discount and Sale Price:

You go shopping for a new sweatshirt. The original cost is \$39.99. You use a 15% off coupon. Find the discount and sale price.

$$\text{discount: } .15(39.99) = 5.9985 \approx \$6.00$$

$$\text{sale price: } 39.99 - 6.00 = \$33.99$$

## Sales Tax:

If you want to buy an item that costs \$48.99 and the tax rate is 8.125%, how much is the tax and the total?

$$\text{tax: } .08125(48.99) = \$3.98$$

$$\text{total: } 48.99 + 3.98 = \$52.97$$

## Discount, Sale Price, Tax Combo:

A store is having a 30% off sale. Your merchandise total is \$129.99. How much is the discount? What is the subtotal/sale price? The tax rate is 7%. Find the tax and the grand total for your purchase.

$$\text{discount: } .30(129.99) = 38.997 \approx \$39.00$$

$$\text{sale price: } 129.99 - 39.00 = \$90.99$$

$$\text{tax: } \overset{.07}{.07}(90.99) = \overset{\$6.37}{\cancel{\$7.39}}$$

$$\text{total: } 90.99 + \overset{6.37}{\cancel{7.39}} = \overset{\$97.36}{\cancel{\$98.38}}$$

## Markup:

A store's cost for a bike is \$75. The markup is 150%. What is the markup?

What is the selling price for the item?

$$\text{markup: } 1.50(75) = \$112.50$$

$$\text{selling price: } 75 + 112.50 = \$187.50$$

## Percent of Markup:

A store marks up an item from \$18 to \$28. How much is the markup? What is the percent of markup on that item?

$$\text{markup: } 28 - 18 = \$10$$

What % of 18 is 10?

$$\frac{18x}{18} = \frac{10}{18} \quad x = .\bar{5} = 55.\bar{5}\%$$

Use % of change formula

$$\frac{28-18}{18} = \frac{10}{18} = .\bar{5}$$

$$= 55.\bar{5}\% \uparrow$$

## Percent of Change:

Bob weighed 210 pounds. He went on a diet and now weighs 165 pounds. What is the percent of change in his body weight?

$$\% \text{ of change} = \frac{\text{amount of change}}{\text{original amount}} = \frac{210 - 165}{210} = \frac{45}{210} = .214 = 21.4\% \downarrow$$

The regular price for sneakers was \$50. The sale price is \$35. What is the percent of discount/change?

$$\frac{50 - 35}{50} = \frac{15}{50} = .3 = 30\% \downarrow$$

## Percent of Error: (Just like Percent of Change)

You estimate the size of your classroom to be 16 feet. The actual length is 21ft. Find the percent of error. Round to the nearest tenth of a percent.

$$\text{percent of error} = \frac{\text{amount of error}}{\text{actual amount}} = \frac{21-16}{21} = \frac{5}{21} = .2381 = 23.8\%$$