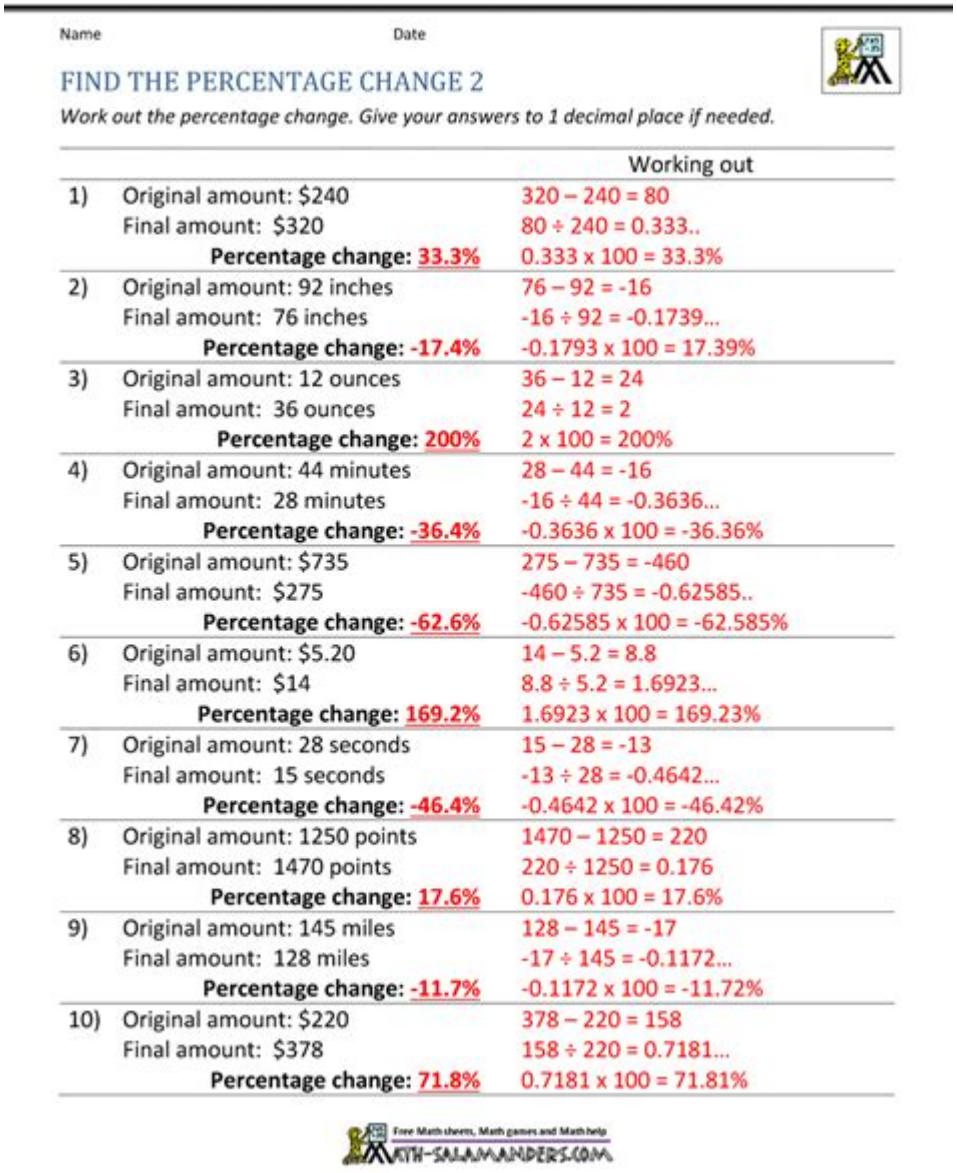
Percent Of Change Worksheet With Answers



Name Date

FIND THE PERCENTAGE CHANGE 2

Work out the percentage change. Give your answers to 1 decimal place if needed.

		Working out
1)	Original amount: $240	320 – 240 = 80
	Final amount: $320	80 ÷ 240 = 0.333..
	Percentage change: 33.3%	0.333 x 100 = 33.3%
2)	Original amount: 92 inches	76 – 92 = -16
	Final amount: 76 inches	-16 ÷ 92 = -0.1739...
	Percentage change: -17.4%	-0.1793 x 100 = 17.39%
3)	Original amount: 12 ounces	36 – 12 = 24
	Final amount: 36 ounces	24 ÷ 12 = 2
	Percentage change: 200%	2 x 100 = 200%
4)	Original amount: 44 minutes	28 – 44 = -16
	Final amount: 28 minutes	-16 ÷ 44 = -0.3636...
	Percentage change: -36.4%	-0.3636 x 100 = -36.36%
5)	Original amount: $735	275 – 735 = -460
	Final amount: $275	-460 ÷ 735 = -0.62585..
	Percentage change: -62.6%	-0.62585 x 100 = -62.585%
6)	Original amount: $5.20	14 – 5.2 = 8.8
	Final amount: $14	8.8 ÷ 5.2 = 1.6923...
	Percentage change: 169.2%	1.6923 x 100 = 169.23%
7)	Original amount: 28 seconds	15 – 28 = -13
	Final amount: 15 seconds	-13 ÷ 28 = -0.4642...
	Percentage change: -46.4%	-0.4642 x 100 = -46.42%
8)	Original amount: 1250 points	1470 – 1250 = 220
	Final amount: 1470 points	220 ÷ 1250 = 0.176
	Percentage change: 17.6%	0.176 x 100 = 17.6%
9)	Original amount: 145 miles	128 – 145 = -17
	Final amount: 128 miles	-17 ÷ 145 = -0.1172...
	Percentage change: -11.7%	-0.1172 x 100 = -11.72%
10)	Original amount: $220	378 – 220 = 158
	Final amount: $378	158 ÷ 220 = 0.7181...
	Percentage change: 71.8%	0.7181 x 100 = 71.81%

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Percent of change worksheet with answers is a fundamental tool in mathematics that helps students understand how to calculate the percentage change between two values. Whether it's in a classroom setting or as part of self-study, mastering this concept is crucial for various applications in real life, such as finance, science, and everyday calculations. This article will provide a comprehensive overview of percent change, how to create a worksheet, sample problems, and their respective answers.

Understanding Percent Change

Percent change is a way to express how much a quantity has increased or decreased relative to its original value. It is commonly used in various

fields such as economics, finance, and statistics. The formula to calculate percent change is:

$$ \text{Percent Change} = \frac{\text{New Value} - \text{Old Value}}{\text{Old Value}} \times 100 $$

This formula provides a clear understanding of the magnitude of change in relation to the initial value.

Types of Percent Change

There are two main types of percent change:

1. Increase: This occurs when the new value is greater than the old value. The result will be a positive percent change.
2. Decrease: This occurs when the new value is less than the old value. The result will be a negative percent change.

Real-Life Applications

Understanding percent change is essential for various reasons:

- Finance: Investors often need to calculate the percentage increase or decrease in stock prices.
- Sales: Businesses calculate percent change to assess growth or decline in sales figures over time.
- Academic Performance: Students can evaluate their progression or regression in grades.
- Health: Individuals might track weight loss or gain as a percentage of their initial weight.

Creating a Percent of Change Worksheet

When constructing a worksheet on percent change, it's important to include a variety of problems that challenge the student’s understanding of the concept. Below are guidelines to create an effective worksheet:

Worksheet Structure

1. Title: Clearly state the topic, e.g., "Percent of Change Worksheet."
2. Instructions: Provide clear instructions on how to calculate the percent change.
3. Problems: Include a mix of increase and decrease scenarios.

4. Answer Key: A separate section that provides the answers with explanations.

Sample Problems for the Worksheet

Here are some sample problems that can be included in the worksheet:

1. A shirt costs $40 and is now on sale for $30. What is the percent change?
2. A city’s population increased from 50,000 to 55,000. What is the percent change in population?
3. A car originally priced at $25,000 is now listed at $22,500. What is the percent change?
4. A student’s test score improved from 75 to 90. What is the percent change?
5. A company’s profits dropped from $200,000 to $150,000. What is the percent change in profits?

Answers to the Percent of Change Worksheet

Below are the answers to the sample problems previously listed, along with the calculations for each.

Problem 1

Question: A shirt costs $40 and is now on sale for $30. What is the percent change?

Calculation:
- Old Value = $40
- New Value = $30
- Percent Change = $\frac{30 - 40}{40} \times 100 = \frac{-10}{40} \times 100 = -25\%$

Answer: The percent change is -25%. This indicates a decrease in the price.

Problem 2

Question: A city’s population increased from 50,000 to 55,000. What is the percent change in population?

Calculation:
- Old Value = 50,000
- New Value = 55,000
- Percent Change = $\frac{55,000 - 50,000}{50,000} \times 100 = \frac{5,000}{50,000} \times 100 = 10\%$

Answer: The percent change is 10%. This indicates an increase in population.

Problem 3

Question: A car originally priced at $25,000 is now listed at $22,500. What is the percent change?

Calculation:
- Old Value = $25,000
- New Value = $22,500
- Percent Change = $\frac{22,500 - 25,000}{25,000} \times 100 = \frac{-2,500}{25,000} \times 100 = -10\%$

Answer: The percent change is -10%. This indicates a decrease in the car's price.

Problem 4

Question: A student’s test score improved from 75 to 90. What is the percent change?

Calculation:
- Old Value = 75
- New Value = 90
- Percent Change = $\frac{90 - 75}{75} \times 100 = \frac{15}{75} \times 100 = 20\%$

Answer: The percent change is 20%. This indicates an improvement in the test score.

Problem 5

Question: A company’s profits dropped from $200,000 to $150,000. What is the percent change in profits?

Calculation:
- Old Value = $200,000
- New Value = $150,000
- Percent Change = $\frac{150,000 - 200,000}{200,000} \times 100 = \frac{-50,000}{200,000} \times 100 = -25\%$

Answer: The percent change is -25%. This indicates a decrease in profits.

Conclusion

The percent of change worksheet with answers serves as an effective

educational resource for students to practice and master the calculation of percent changes. By understanding the concept of percent change, students can apply this knowledge in various aspects of life, enhancing their mathematical skills and critical thinking. These worksheets can be customized to include more complex scenarios or real-world applications, making them a versatile tool in both educational settings and personal learning environments.

Frequently Asked Questions

What is a percent of change worksheet used for?

A percent of change worksheet is used to practice calculating the percent increase or decrease between two values.

How do you calculate percent of change?

Percent of change is calculated using the formula: ((new value - old value) / old value) x 100.

What is the formula for percent increase?

The formula for percent increase is: ((new value - old value) / old value) x 100.

What is the formula for percent decrease?

The formula for percent decrease is: ((old value - new value) / old value) x 100.

Can you provide an example of a percent of change problem?

Sure! If the price of a shirt goes from $20 to $25, the percent increase is ((25 - 20) / 20) x 100 = 25%.

What information do I need to solve percent of change problems?

You need the old value and the new value to calculate the percent of change.

Are percent of change worksheets suitable for all grade levels?

Yes, percent of change worksheets can be adapted for various grade levels, from elementary to high school.

Where can I find percent of change worksheets?

Percent of change worksheets can be found online through educational websites, math resource platforms, and printable worksheet sites.

What are some common applications of percent of change in real life?

Percent of change is commonly used in financial calculations, sales tax computations, and analyzing data trends.

How can teachers use percent of change worksheets in the classroom?

Teachers can use percent of change worksheets for individual practice, group activities, or assessments to reinforce students' understanding of the concept.

Percent Of Change Worksheet With Answers

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