

Percent Change Worksheet

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Part 1: Building a Foundation

What is the formula for calculating percent change?

Hint: Think about how you determine the difference between two values.

- $((\text{Original Value} - \text{New Value}) / \text{New Value}) * 100$
- $((\text{New Value} - \text{Original Value}) / \text{Original Value}) * 100$
- $((\text{New Value} + \text{Original Value}) / \text{Original Value}) * 100$
- $((\text{Original Value} + \text{New Value}) / \text{New Value}) * 100$

Which of the following are necessary steps in calculating percent change? (Select all that apply)

Hint: Consider the steps involved in the calculation process.

- Identify the original and new values.
- Multiply the original value by 100.
- Subtract the original value from the new value.
- Divide the change by the original value.

Explain in your own words what a positive percent change indicates about the relationship between the original and new values.

Hint: Think about how the values compare to each other.

List two fields where percent change is commonly applied and provide a brief example for each.

Hint: Consider areas like finance, economics, or science.

1. Field 1: Finance

2. Field 2: Economics

Part 2: comprehension and Application

If a stock price increases from \$50 to \$75, what type of percent change does this represent?

Hint: Consider whether the value has gone up or down.

- Decrease
- Increase
- No Change
- Error in Calculation

Which scenarios below correctly describe a percent decrease? (Select all that apply)

Hint: Think about situations where values have dropped.

- A population grows from 1,000 to 1,200.
- A product price drops from \$100 to \$80.
- A company's revenue falls from \$500,000 to \$450,000.
- A car's value increases from \$20,000 to \$22,000.

Describe how percent change can be used to analyze economic trends, such as inflation or GDP growth.

Hint: Consider how these metrics are calculated and interpreted.

A scientist measures the growth of a plant from 20 cm to 30 cm. What is the percent change in the plant's height?

Hint: Use the percent change formula to calculate.

- 25%
- 33.33%
- 50%
- 66.67%

Calculate the percent change if a company's profits increase from \$200,000 to \$260,000, and explain the significance of this change.

Hint: Use the percent change formula and consider its implications.

Part 3: Analysis, Evaluation, and Creation

If the percent change in sales from one year to the next is negative, what can be inferred about the sales trend?

Hint: Consider what a negative change indicates.

- Sales have increased.
- Sales have decreased.
- Sales have remained constant.
- Sales data is insufficient.

Analyze the following situations and identify which represent a percent increase. (Select all that apply)

Hint: Look for scenarios where values have gone up.

- A decrease in temperature from 30°C to 20°C.
- An increase in student enrollment from 500 to 550.
- A reduction in expenses from \$1,000 to \$800.
- An increase in the number of employees from 100 to 120.

Analyze how percent change can impact decision-making in business, providing a specific example.

Hint: Consider how businesses use percent change in their strategies.

A company reports a 15% increase in production efficiency. What might be a potential cause for this change?

Hint: Think about factors that could lead to improved efficiency.

- Increased labor costs
- Implementation of new technology
- Reduction in workforce
- Decrease in product demand

Propose a strategy for a business to achieve a positive percent change in sales over the next quarter, considering current market trends.

Hint: Think about marketing, product development, or customer engagement.

Create two real-world scenarios where calculating percent change would be essential, and explain why it is important in each case.

Hint: Consider different industries or situations.

1. Scenario 1: Stock Market Analysis

2. Scenario 2: Sales Performance Review