

Simple Interest Worksheet Answer Key PDF

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Part 1: Foundational Knowledge

What is the formula for calculating simple interest?

undefined. A) $SI = \frac{P \times R \times T}{100}$ ✓

undefined. B) $SI = P \times (1 + R)^T$

undefined. C) $SI = P \times R \times T$

undefined. D) $SI = \frac{P + R + T}{100}$

The correct formula for calculating simple interest is $SI = (P \times R \times T) / 100$.

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The correct formula for calculating simple interest is $SI = (P \times R \times T) / 100$.

Which of the following are components needed to calculate simple interest? (Select all that apply)

undefined. A) Principal (P) ✓

undefined. B) Rate of Interest (R) ✓

undefined. C) Time Period (T) ✓

undefined. D) Inflation Rate

The components needed to calculate simple interest are Principal (P), Rate of Interest (R), and Time Period (T).

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The components needed to calculate simple interest are Principal (P), Rate of Interest (R), and Time Period (T).

Explain in your own words what simple interest is and how it differs from compound interest.

Simple interest is calculated only on the principal amount, while compound interest is calculated on the principal and the accumulated interest.

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List the three main variables used in the simple interest formula and provide a brief description of each.

1. Principal (P)

The initial amount of money invested or loan taken.

2. Rate of Interest (R)

The percentage at which interest is calculated on the principal.

3. Time Period (T)

The duration for which the money is invested or borrowed.

The three main variables are Principal (P), Rate of Interest (R), and Time Period (T).

Part 2: comprehension

If the principal amount is \$1,000, the rate of interest is 5% per annum, and the time is 3 years, what is the simple interest?

undefined. **A) \$150 ✓**

undefined. B) \$300

undefined. C) \$500

undefined. D) \$600

The simple interest would be \$150.

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undefined. D) \$600

The simple interest would be \$150.

Which statements are true about simple interest? (Select all that apply)

undefined. A) It is calculated on the original principal only. ✓

undefined. B) It increases exponentially over time.

undefined. C) It is commonly used in savings accounts. ✓

undefined. D) It results in the same interest amount each year. ✓

True statements include that it is calculated on the original principal only and results in the same interest amount each year.

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True statements include that it is calculated on the original principal only and results in the same interest amount each year.

Describe a real-world scenario where simple interest might be more beneficial than compound interest.

Simple interest might be more beneficial in short-term loans where the borrower wants to minimize interest costs.

Describe a real-world scenario where simple interest might be more beneficial than compound interest.

Simple interest is beneficial in situations like short-term loans or fixed deposits where the interest is calculated on the principal only.

Part 3: Application

John invests \$2,000 at a simple interest rate of 4% per annum for 5 years. What will be the total amount he receives at the end of the investment period?

undefined. A) \$2,400 ✓

undefined. B) \$2,800

undefined. C) \$3,000

undefined. D) \$3,200

The total amount John receives will be \$2,400.

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undefined. D) \$3,200

The total amount John receives will be \$2,400.

Which of the following scenarios involve the use of simple interest? (Select all that apply)

undefined. A) A fixed deposit in a bank ✓

undefined. B) A car loan with a fixed interest rate ✓

undefined. C) A savings account with annual compounding

undefined. D) A government bond with a fixed interest rate ✓

Scenarios involving simple interest include a fixed deposit in a bank and a government bond with a fixed interest rate.

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Scenarios that involve simple interest include fixed deposits and government bonds with a fixed interest rate.

Calculate the simple interest earned on a loan of \$5,000 at an interest rate of 6% per annum over 4 years.

The simple interest earned would be \$1,200.

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The simple interest earned would be \$1,200.

Part 4: Analysis

Analyze the following statements and identify which are correct regarding the relationship between principal, rate, and time in simple interest. (Select all that apply)

undefined. A) Doubling the principal doubles the simple interest. ✓

undefined. B) Halving the rate of interest halves the simple interest. ✓

undefined. C) Increasing the time period decreases the simple interest.

undefined. D) The simple interest is directly proportional to the time period. ✓

Correct statements include that doubling the principal doubles the simple interest and that the simple interest is directly proportional to the time period.

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Correct statements include that doubling the principal doubles the simple interest and that the simple interest is directly proportional to the time period.

Compare and contrast the impact of increasing the interest rate versus increasing the time period on the total simple interest earned.

Increasing the interest rate will increase the total interest earned more significantly than increasing the time period, assuming the principal remains constant.

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Part 5: Evaluation and Creation

Which scenario would result in the highest simple interest earned over 5 years?

undefined. A) \$1,000 at 5% per annum

undefined. **B) \$1,500 at 4% per annum ✓**

undefined. C) \$2,000 at 3% per annum

undefined. D) \$2,500 at 2% per annum

The scenario with \$1,500 at 4% per annum would yield the highest simple interest.

Which scenario would result in the highest simple interest earned over 5 years?

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undefined. B) \$1,500 at 4% per annum

undefined. C) \$2,000 at 3% per annum

undefined. D) \$2,500 at 2% per annum

The scenario that results in the highest simple interest is \$1,000 at 5% per annum.

Evaluate the following investment options and select which ones are likely to yield the highest total amount after 10 years. (Select all that apply)

undefined. A) \$5,000 at 3% simple interest ✓

undefined. B) \$4,000 at 4% simple interest ✓

undefined. C) \$3,000 at 5% simple interest

undefined. D) \$2,000 at 6% simple interest

The options likely to yield the highest total amount are \$5,000 at 3% simple interest and \$4,000 at 4% simple interest.

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undefined. D) \$2,000 at 6% simple interest ✓

The options likely to yield the highest total amount are \$5,000 at 3% simple interest and \$2,000 at 6% simple interest.

Design a simple interest investment plan for a client who wants to invest \$10,000 for 7 years. Explain your choice of interest rate and how it meets the client's financial goals.

The investment plan should consider a competitive interest rate that aligns with the client's risk tolerance and financial goals.

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