GRADE 7 MATHEMATICS

Simple & Compound Interest

Complete Printable Worksheet Pack — Revised Edition

6 Practice Worksheets • 6 Answer Keys • Worked calculations practice • Real-life applications

Name: _____

Class: _____ **Date:** _____

Worksheet 1 — Simple Interest Basics

Name: _____ Date: _____

1. Find the simple interest on $500 at 6% per year for 2 years.

2. Find the simple interest on $1,200 at 5% per year for 3 years.

3. Find the total amount on $800 at 7% per year for 2 years.

4. Find the simple interest on $2,500 at 4% per year for 5 years.

5. $900 is invested at 8% per year for 3 years. Find the interest and final amount.

6. Find the simple interest on $1,500 at 6.5% per year for 2 years.

7. A sum earns $180 simple interest in 3 years at 5% per year. Find the principal.

8. A principal of $2,000 earns $240 simple interest in 2 years. Find the annual rate.

9. A sum of $3,000 earns $450 simple interest at 5% per year. Find the time.

10. Write the formula for simple interest and explain what P, R and T represent.

Show your working clearly. Round only where necessary and state when an answer is approximate.

Answer Key — Worksheet 1 — Simple Interest Basics

Check both your formula and your calculation.

1. $60

2. $180

3. Interest $112; amount $912

4. $500

5. Interest $216; amount $1,116

6. $195

7. $1,200

8. 6%

9. 3 years

10. SI = (P × R × T) ÷ 100; P = principal, R = annual rate (%), T = time in years.

Worksheet 2 — Finding Missing Values

Name: _____ Date: _____

1. The simple interest on $1,500 for 4 years is $300. Find the rate.

2. $2,400 earns $432 simple interest at 6% per year. Find the time.

3. A sum earns $525 in simple interest in 5 years at 7% per year. Find the principal.

4. $4,000 is invested for 3 years at 5.5% per year. Find the interest and amount.

5. A principal of $2,800 earns $588 simple interest over 3.5 years. Find the annual rate.

6. At 8% per year, how long will $2,500 take to earn $600 simple interest?

7. A sum becomes $2,760 after earning $360 simple interest in 4 years. Find the principal and rate.

8. A principal of $3,500 earns $735 in 3 years. Find the rate.

9. A sum of $1,800 is invested at 4.5% per year. How much simple interest is earned in 2.5 years?

10. If the principal is doubled while the rate and time stay the same, what happens to the simple interest? Explain.

Show your working clearly. Round only where necessary and state when an answer is approximate.

Answer Key — Worksheet 2 — Finding Missing Values

Check both your formula and your calculation.

1. 5%

2. 3 years

3. $1,500

4. Interest $660; amount $4,660

5. 6%

6. 3 years

7. Principal $2,400; rate 3.75%

8. 7%

9. $202.50

10. It doubles, because simple interest is directly proportional to the principal.

Worksheet 3 — Simple Interest in Real Life

Name: _____ Date: _____

1. A student deposits $2,000 in an account paying 4% simple interest for 3 years. Find the final amount.

2. A family borrows $5,000 at 6% simple interest for 2 years. Find the total interest and repayment.

3. A savings account earns $315 simple interest on $1,500 over 3.5 years. Find the rate.

4. A loan of $8,000 is charged 7.5% simple interest for 18 months. Find the interest.

5. An investment of $6,500 earns 5.2% simple interest for 2 years. Find the final value.

6. A person wants to earn $480 interest from $3,000 at 4% simple interest. How long must the money be invested?

7. A $7,200 loan is taken for 2.5 years at 8% simple interest. Find the amount repaid.

8. Which earns more simple interest over 4 years: $2,500 at 6% or $3,000 at 5%? Find the difference.

9. A deposit grows from $4,000 to $4,720 under simple interest in 3 years. Find the annual rate.

10. A lender charges 9% simple interest for 8 months on $4,500. Find the interest and total repayment.

Show your working clearly. Round only where necessary and state when an answer is approximate.

Answer Key — Worksheet 3 — Simple Interest in Real Life

Check both your formula and your calculation.

1. $2,240

2. Interest $600; repayment $5,600

3. 6%

4. $900

5. $7,176

6. 4 years

7. $8,640

8. $600 vs $600; difference $0

9. 6%

10. Interest $270; repayment $4,770

Worksheet 4 — Compound Interest Basics

Name: _____ Date: _____

1. Find the amount and compound interest on $1,000 at 10% per year for 2 years, compounded annually.

2. Find the amount on $2,000 at 5% per year for 2 years, compounded annually.

3. Find the compound interest on $500 at 20% per year for 2 years, compounded annually.

4. Find the amount on $4,000 at 10% per year for 3 years, compounded annually.

5. Find the compound interest on $1,500 at 8% per year for 2 years, compounded annually.

6. A $2,500 investment grows at 4% per year for 3 years, compounded annually. Find the final amount.

7. Explain one important difference between simple and compound interest.

8. For $1,000 at 10% for 2 years, compare simple and compound interest.

9. Find the amount on $800 at 25% per year for 2 years, compounded annually.

10. Why is the second year's compound interest calculated on a different amount from the first year's interest?

Show your working clearly. Round only where necessary and state when an answer is approximate.

Answer Key — Worksheet 4 — Compound Interest Basics

Check both your formula and your calculation.

1. Amount $1,210; CI $210

2. $2,205

3. $220

4. $5,324

5. $249.60

6. $2,812.16

7. Simple interest is calculated on the original principal; compound interest is calculated on the accumulated balance, including earlier interest.

8. SI $200; CI $210; compound interest is $10 more.

9. $1,250

10. Because the first year's interest is added to the principal before the second year's interest is calculated.

Worksheet 5 — Comparing Simple & Compound Interest

Name: _____ Date: _____

1. Find the simple and compound interest on $2,000 at 5% for 2 years. Find the difference.

2. Find the simple and compound interest on $3,000 at 10% for 3 years. Find the difference.

3. $5,000 is invested at 6% for 2 years. Compare the final amounts under simple and compound interest.

4. $1,200 is invested at 8% for 3 years. Find the difference between compound and simple interest.

5. A person invests $4,000 at 7% for 2 years. How much greater is the compound-interest amount than the simple-interest amount?

6. Explain why the gap between simple and compound interest generally becomes larger over longer periods.

7. An investment earns $500 simple interest over 5 years at 4%. Find the principal.

8. The same principal and rate are used for compound interest for 5 years. Calculate the compound interest.

9. A $10,000 investment earns 5% annually for 2 years. Find the final amount under both methods.

10. An account pays 10% compound interest annually. Starting with $800, find the amount after 3 years.

Show your working clearly. Round only where necessary and state when an answer is approximate.

Answer Key — Worksheet 5 — Comparing Simple & Compound Interest

Check both your formula and your calculation.

1. SI $200; CI $205; difference $5

2. SI $900; CI $993; difference $93

3. SI amount $5,600; CI amount $5,618; difference $18

4. CI interest $311.65; SI interest $288; difference $23.65 (approximately)

5. CI amount $4,581.60; SI amount $4,560; difference $21.60

6. Compound interest earns interest on previously accumulated interest, so the difference generally grows over time.

7. $2,500

8. $541.63 (approximately)

9. SI amount $11,000; CI amount $11,025

10. $1,064.80

Worksheet 6 — Simple & Compound Interest Challenge

Name: _____ Date: _____

1. An investment of $4,000 earns 6% compound interest annually for 3 years. Find the final amount and total interest.

2. A sum of $2,500 earns $300 simple interest in 2.5 years. Find the annual rate.

3. $3,000 is invested at 8% compound interest for 2 years. Find the compound interest and compare it with simple interest.

4. A loan of $6,000 is charged 5% simple interest for 18 months. Find the total repayment.

5. An account grows from $5,000 to $5,512.50 in 2 years with annual compound interest. Find the annual rate.

6. An investment of $2,000 grows by 10% each year. Find its value after 4 years and the total growth.

7. A student compares $3,000 at 6% simple interest for 4 years with the same investment at 6% compound interest annually. Find the difference in final amounts.

8. A principal of $4,000 is invested for 2 years. At what annual rate would simple interest produce $480?

9. A $5,000 investment earns 4% compound interest annually. How much interest is earned in the second year alone?

10. A bank offers either 7% simple interest or 6.5% compound interest annually for 3 years on $8,000. Calculate both final amounts and state the numerical difference.

Show your working clearly. Round only where necessary and state when an answer is approximate.

Answer Key — Worksheet 6 — Simple & Compound Interest Challenge

Check both your formula and your calculation.

1. Amount $4,764.06; interest $764.06

2. 4.8%

3. CI $499.20; SI $480; CI is $19.20 more

4. Interest $450; repayment $6,450

5. 5%

6. $2,928.20; growth $928.20

7. SI amount $3,720; CI amount $3,787.43; difference $67.43

8. 6%

9. $208 (second-year interest on $5,200)

10. SI amount $9,680; CI amount $9,663.60; SI amount is higher by $16.40