

Check Your Understanding Financial Math – Compound Interest

The table below identifies some key concepts from this unit. Complete each question, check your answers, and get help as needed.

Key Concepts	Basic Questions	Intermediate Questions	Advanced Questions
Solving for C	1, 2, 3	4	5

1. You invest \$5470 at an annual compound interest rate of 2.8%. What is the value of your investment after 7 years?

2. To calculate the depreciation of items, the compound interest function is used. If you bought a car worth \$23,852 and it depreciates at a rate of 4.7% annually, what is the value of the car after 5 years?

3. You borrow \$3500 and are charged a monthly compound interest rate of 0.7%. If you repay the entire loan after 24 months, how much will you have to repay?

4. Sam and Ben both invest \$2500 for 3 years.
Sam's investment earns an annual compound interest rate of 3.1%
Ben's investment earns an annual simple interest rate of 3.1%
Who made the better investment? Explain why.

5. Amy and Kacey both invest \$5400 for 7 years.
Amy's investment earns an annual compound interest rate of 1.6%
Kacey's investment earns a monthly simple interest rate of 0.15%
Who made the better investment?

Answer Key		
1. \$6636.50	2. \$18749.48	3. \$4137.86
4. Sam. The interest rates are the same, but every year Sam earns interest on the previously earned interest. Ben only earns interest on the initial investment.		5. Kacey