

Your name:

**Test 4, January 26, 2022**

The test lasts half an hour. Show your work. A compound interest table is attached.

1. What is 60.5% as a decimal?
2. What is 37.5% as a fraction?
3. What is 0.45% as a decimal?
4. Six gallons of exterior paint cost \$155.00 plus sales tax of 6%. What is the total cost?
5. Suppose the price of a computer is \$1,000 plus 6.5% sales tax. How much will it cost?
6. A car company pays by commission. Joe earned a commission of \$500 last week on sales of \$2,500. What is the commission rate?
7. If a Honda SUV is offered at 12% off the suggested retail price of \$34,500, what is the amount of the discount?
8. Someone got a discount of 15% off the original price for an engine repair, and that saved him \$132. What was the original price?

9. You pay an 8% simple interest rate on a loan of \$3,000 for 2.5 years. How much interest do you pay?

10. 40 pillows is 5% of what number of pillows?

11. You are selling your house and your broker offers you a choice of a commission rate of 6% or a fixed commission of \$10,000. What price of house makes the two commissions equal? (round to the nearest dollar)

12. In 2022, your investment of \$1,000 in the stock market goes down 10% in value. In 2023, your investment goes up 10% in value. How much do you end up with?

13. If shipping costs add 8% to an order, and you order two birdfeeders from Ace Online at \$34.88 each, what is the total amount you end up paying? (round to the nearest cent)

14. Sam lends \$3,000 to Mary for 8 years at an interest rate of 3.5%, compounded annually. How much does Mary pay back Sam at the end of the 8 years?

15. I borrow \$4,000 at 2.5% interest, compounded annually, for 7 years. How much interest do I pay?

Bonus questions.

B1. Suppose you earn compound interest of 11% on an investment of \$2,000 for three years. How much interest is earned each year?

B2. Suppose you want to have \$3,000 to spend in 4 years, and you can invest money now and earn 5%, compounded annually. How much do you need to invest now? (round to the nearest dollar)