

6.7 Practice Problems

1. Susie invests 5000 dollars in a bank account paying 5% interest per year, compounded quarterly for 10 years. How much will Susie have after 10 years?
2. Tito invests 5000 dollars in a bank account paying 4% interest per year, compounded continuously for 5 years. How much will Tito have after 5 years?
3. Nicholas wants to invest 2000 dollars for 5 years. He has had two offers. One paying 4.5% per year compounded monthly and the other paying 4.45% compounded continuously. Which is the better investment?
4. Suppose that a bank offers you an account that pays 5% annually compounded continuously. If you plan to deposit \$500, how long will it take for you money to double? Round your answer to the nearest year.

5. Suppose that broker tells you that it will take 8 years to double your money on an investment that is compounded continuously. What is the annual interest rate that you will be earning? Round your answer to three decimal places.

6. Find the principle needed now to get the given amount, that is, find the present value.
To get \$50,000 after 10 years at 7% interest compounded quarterly.

7. If Katie has \$4000 to invest 5% compounded monthly, how long will it take before she has \$5000? If the compounding is continuous, how long will it be?

8. What will a \$250,000 house cost 2 years from now if the price appreciation for homes over that period averages 11% compounded quarterly.