

Algebra II  
Compound Interest  
10-7a

Name: \_\_\_\_\_

Solve.

- 1) One thousand dollars is invested at 12% interest compound annually.  
Determine how much the investment is worth after 3 years.
  
- 2) A \$100 loan earns interest at 7.2% compounded annually. Determine how much the investment is worth after:
  - a) 1 year
  - b) 5 years
  - c) 10 years
  - d) 20 years
  - e) Estimate the doubling time for the value of this loan.
  
- 3) A CD is purchased for \$5,000 and has a quarterly compounded interest rate of 6.5%. How many years will it take to mature to \$20,000?
  
- 4) What is the interest rate of a \$2000 monthly-compounded CD if it matures at \$10,000 in 20 years.
  
- 5) How long will it take to double your money if you invest it at a rate of 8% compounded annually?

- 6) \$1000 is invested at 9.5% compounded daily for 30 years. How much is the investment worth at maturity?
- 7) \$5,000 is put into a savings account with a 2.1% interest rate compounded monthly. How much is this investment worth after 20 years?
- 8) How long will it take to triple your money if you invest it at a rate of 6% compounded annually?
- 9) How much money was invested at 4.7% compounded quarterly for 15 years if the account matured at \$30,000?