Section 3.3 (Solving For Rates and Times—The Rule of 72)

1. Approximately long will it take Julia to double her money if she earns 2.84% interest compounded quarterly?

2. Approximately long will it take Amber to double her money if she earns 7.9% interest compounded continuously?

3. Adam has $7,000 in an investment that earns 5% interest compounded monthly.
   (a) Approximately how long will it take for the investment value to reach $14,000?
   (b) Check your approximation in (a), how much money will Adam have after that length of time?

4. Adam is still investing 7,000 in an investment that earns 5% interest compounded monthly. How long will it take for the investment value to reach $28,000?

5. What compound interest rate is required for $18,704 to double in 10 years?

6. What compound interest rate is required for $5,000 to quadruple in 30 years?