

Math 16B
Kouba
Handout 1

- 1.) You wish for \$500 in a savings account to grow to \$1200 in 8 years. If interest is compounded daily, what should the annual interest rate r be ?
- 2.) A savings account grew from \$1000 to \$5200. If the annual interest rate was 3.5 % compounded yearly, how long was the money in this account ?
- 3.) An account with interest compounded continuously earned $5\frac{1}{2}\%$ annual interest for 3 years. If the final amount in the account was \$12,850, what was the initial amount ?
- 4.) An account with interest compounded continuously earned 12% annual interest. If the account grew from \$2000 to \$20,000, how long was the money in the account ?
- 5.) A child inherits \$50,000, which is to be deposited in a retirement account. Account A offers an annual rate of $5\frac{3}{4}\%$ compounded continuously, and Account B offers an annual rate of 5.8% compounded once each year. Compare the amount which would be in each account after $t = 5$ years, $t = 50$ years, and $t = 75$ years.