Math 1300 Fall 2013
Wednesday August 21 2013
Exercises

1. You have invested $\$100,000$ at 2.5% compounded annually. How much will your investment be worth in 20 years?

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2. If you want to have $\$10,000$ on your 25^{th} birthday, how much would you need to put in an investment earning 1.5% interest compounded monthly when you turn 21?

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3. Is it more profitable to receive $\$7,000$ now or $\$10,000$ in 9 years if your money can earn 4% interest compounded quarterly?

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4. Would you rather earn 3% interest compounded annually or 2.92% compounded daily? Does your answer depend on how much you will invest?

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5. If you deposit \$1000 for six years in an account earning 3.6% interest compounded monthly, how much interest do you make **during the sixth year**?

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6. If you need \$2300 in three years, and have \$2000 to invest in an account that earns interest compounded annually, what is the minimum rate of interest you need the account to earn? Write your answer as a percentage rate, correct to 2 decimal places.

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7. If you deposit \$2000 in an account earning 2% **simple** interest, how much will you have in 18 months? (Assume that you earn pro-rated interest for a part of a year).

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8. If you invest \$100 in an account earning 2.7% interest compounded monthly, how much will you have in 1 year? What simple interest rate would give you the same return in one year?

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9. If an account pays you 7.95% interest compounded quarterly, what effective rate of interest are you earning?