The student will write python code to answer the following time value of money questions. Not only does this exercise reinforce earlier financial practices, but gives the student a chance to practice mathematical and string python coding skills.

1. In 1895, the first a sporting event was held. The winner's prize money was $120. In 2007, the winner's check was $1,179,000. (Do not round your intermediate calculations.)
    a) What was the percentage increase per year in the winner's check over this period?

    b) If the winner's prize increases at the same rate, what will be in 2040?

2. Although appealing to more refined tastes, art as a collectible has not always performed so profitably. During 2003, a sculpture was sold at auction for a price of $10,305,500. Unfortunately for the previous owner, he had purchased it in 1999 at a price of $12,385,500. What was his annual rate of return on this sculpture?

3. You have just made your first $2,000 contribution to your retirement account. Assuming you earn a 10 percent rate of return and make no additional contributions.
    a) What will your account be worth when you retire in 35 years?

    b) What will your account be worth if you wait 7 years before contributing?

4. You are scheduled to receive $29,000 in two years. When you receive it, you will invest it for 8 more years at 5.0 percent per year. How much will you have in 10 years?

5. You expect to receive $8,000 at graduation in two years. You plan on investing it at 12 percent until you have $95,000. How long will you wait from now? (Do not round your Intermediate calculations.)