1. On the day of a child's birth, a deposit of $25,000 is made in a trust fund that pays 8.25% interest. Determine the balance in this account on the child's 26th birthday if the interest is compounded:
a) quarterly   b) monthly   c) continuously

2. What is the initial value of a Samsung Galaxy phone if it depreciates at a value of 2.5% per week if after 57 weeks it was worth $124?

3. How much money would you need to deposit today at 9% annual interest compounded monthly to have $12,000 in the account after 6 years?

For #'s 4-5, find the balance in each account for the different compounding periods.

4. $15,000 principal earning 3.5% interest after 4 years

a) Annually   b) Semi-annually   c) Quarterly   d) Monthly

5. The half-life of a radioactive isotope is the time it takes for half the material to become inert. Starting with 100g of radioactive material, find the number of grams still radioactive after 10 days if the half-life is:

a)10 days   b) 1 day   c) 20 days   d) 12 hours

6. A student wants to have $10,000 for college 5 years from now. How much should she put into an account that earns 4.1% annual interest compounded continuously?

7. How long would it take to double your principal at an annual interest rate of 8% compounded continuously?