NAME: Period: SCORE:_____/_____=_____%=_____

HW 5-7

Sec 1 Compounded Interest Unit 5

1. Cami invested $6,000 dollars into an account that earns 10% interest compounded annually.
   a. Write and explicit equation for how much money she will have after t years.

   b. How much money will Cami have in 6 years? Round to the nearest hundredth.

2. Sarah's saving account currently has $200. She earns 5% interest on her account compounded monthly.
   a. Write an explicit equation for how much money she will have after t years.

   b. How much money will Sarah have after 6 months? Round to the nearest hundredth.

3. Paul invested $400 into an account with a 5.5% interest rate compounded monthly.
   a. Write an explicit equation for how much money she will have after t years.

   b. How much will Paul's investment be worth in 8 years? Round to the nearest hundredth.

4. Theo invested $6,600 at an interest rate of 4.5% compounded monthly.
   a. Write an explicit equation for how much money he will have after t years.

   b. How much will Theo's investment be worth in 4 years? Round to the nearest hundredth.

5. Paige invested $1200 at an interest rate of 5.75% compounded quarterly.

a. Write an explicit equation for how much money she will have after x years.

b. How much will Paige's investment be worth in 7 years? Round to the nearest hundredth.

6. Brooke is saving money for a trip to the Bahamas that costs $295.99. She puts $150 dollars into a savings account that pays 7.25% interest compounded quarterly. Will she have enough money in the account after 4 years? Explain.

7. Jin's investment of $4,500 has been losing its value at a rate of 2.5% each year.

a. Write an explicit equation for how much money he will have after x years.

b. How much will Jin's investment be worth in 5 years? Round to the nearest hundredth.

8. Santos invested $1,200 into an account with an interest rate of 8% compounded monthly. James invested $1,500 into an account with an interest rate of 5% compounded quarterly.

a. Write an explicit equation for how much money Santos will have after *x* years.

b. Write an explicit equation for how much money James will have after *x* years.

c. Who will have more money after 5 years?

d. Who will have more money after 7 years?

e. Who will have more money after 10 years?