Name _____

Compound Interest Practice Worksheet

Directions: Use the formula $A = P(1 + \frac{r}{n})^{nt}$ where *A* represents the total amount, *P* represents the principal, *r* represents the interest rate as a decimal, *n* represents the number of times per year interest is compounded, and *t* represents the time in years to answer the questions below.

1) A coin had a value of $1.17 in 1995. Its value has been increasing at 9% per year. What is the value after 5 years?

2) Gina deposited $1500 in an account that pays 4% interest compounded quarterly. What will the balance be in 2 years?

3) The Garcias have $12,000 in a savings account. The bank pays 3.5% interest on savings accounts, compounded monthly. Find the total balance after three years.

4) Determine the amount of **interest** earned on a $2500 investment if it is invested at 5.25% annual interest compounded monthly for four years.

5) Determine the amount of **interest** earned on a $100,000 investment if it is invested at 5.2% annual interest compounded quarterly for 12 years.

6) The Fresh and Green Company has a savings plan for employees. If an employee makes an initial deposit of $1000, the company pays 8% interest compounded quarterly. If an employee withdraws the money after five years, how much is in the account?

7) Using the information in the question above, find the **interest** earned if the money is withdrawn after 35 years.

8) Mr. and Mrs. Boyce bought a house for $96,000 in 1995. Real estate values in their area increase approximately 4% each year. What was the value of the house in 2007?

9) Determine the amount of **interest** earned if $500 is invested at an interest rate of 4.25% compounded quarterly for 12 years.

10) Determine the final account balance of an investment if $300 is invested at an interest rate of 6.75% compounded semiannually for 20 years.

11) The Greens bought a condo for $110,000 in 2005. If its value appreciates at 6% per year, what will the value be in 2012?

Algebra 2

Continous Compounded Interest (Pert) HW (CCIHW)

1) Kimi invests $4,000 at 3% interest compounded continuously. How much money will she have in 4 years?

2) Dash invested $10,000 at 3% interest compounded continuously. How much will he have after 8 years?

3) Ashleigh wants to double her money. She put $5,000 in a bank account that pays 4% compounded continuously. How long will it take her to double her money? (Round to the nearest tenth.)

4) Cyndie invests some money at 2% compounded continuously. If after 6 years she has $1691.25, what was her initial investment?

5) Jenn invests $2150 at 2% compounded continuously. How many years will it take her to accumulate $2733.19 in the account?

6) Damara invests $3500 at 2% compounded continuously for 5 years. How much will she have in her account after 5 years?

7) Kimi invested in an account paying 4% compounded continuously for 3 years. If the account has $18,039.95 after 3 years, how much did she put in initially?

8) Chelsea put $7500 into an account paying 5% compounded continuously. She now has $10,643.01. How long has the money been in the account?

9) Dash puts $4125 into an account. If he keeps the money in the account for 5 years and now has a total of $4193.89. What is the interest rate?

10) Ashleigh put some money into an account paying 4.5% compounded continuously for 10 years. She now has $3567.91 in the account. How much money did she start the account with?

Solve each equation.

11) $3^{-b} = 3^{-3b}$

12) $2^{3n} = \frac{1}{64}$

13) $4^{-m} = 4^{m-3}$

14) $\left(\frac{1}{6}\right)^{-k} = \frac{1}{36}$