Names: _____ _____ _____

Activity #8: Exponentials and Logs **College Algebra**

1. Solve the following equation.

$$3^{2x-1} = 27^{x+2}$$

2. Solve the following equation using logarithms.

$$3 = 2^{x+1}$$

3. Suppose \$20,000 is invested at a 0.5% APR, compounded quarterly, for 5 years. Using the equation

$$A = P\left(1 - \frac{r}{n}\right)^{nt}$$

find the final value of this account.

4. Suppose \$20,000 is invested at a 0.5% APR, compounded quarterly. How many years will it take for this account to be worth \$25,000?

5. Suppose P dollars are invested at 0.7% APR, compounded monthly. How many months will it take for the value of this account to double?