

Name _____ Date _____ Pd _____

6.5 Solving Exponential Equations Day TWO Practice WS

Use a graphing calculator to solve the equation. Do not round until the final answer, if necessary, to the thousandths. Show the work for checking all your answers on the back of this sheet.

1. $3^{x+3} = -9$

2. $\left(\frac{1}{4}\right)^{-x-1} = 18$

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

4. $2^{x+2} = 5^{x-3}$

5. $7^{-x+1} = -4^{x-1}$

6. $\frac{1}{4}x + 1 = \left(\frac{2}{3}\right)^{2x-1}$

7. You deposit \$1,000 in a savings account that earns 5% annual interest compounded yearly.

a) Write an exponential equation to determine when the balance of the account will be \$1,500.

b) Solve the equation.

c) Write your solution in a complete sentence in terms of the problem.

CHECKING YOUR ANSWERS for 1 – 6.

1.

2.

3.

4.

5.

6.