Algebra I Class Work 8.6

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directions: You may use your book, notes, calculator, friends, and teacher. However you may not copy someone else work verbatim. **Show all your work.** If you are not finished at the end of class, write “NEED MORE TIME” at the top and turn your paper in – **you may not take it home.** You have one week to finish it.

For each exponential function, identify the initial amount, the growth rate and the growth factor. Then state whether the function models exponential growth or exponential decay.

1. $y=79\left(1-0.34\right)^{x}$
2. $y=250\left(1+0.88\right)^{x}$
3. $f\left(x\right)=3\left(1.5\right)^{x}$

Write each described exponential function in the form $f\left(t\right)=ab^{t}$. Then state whether the function models exponential growth or decay.

1. Initial amount: 15; rate: 350%
2. Initial amount: 80; rate: -49%