Algebra 2B Review 8

**8.1 Transform between log form and exponential form**

1. Describe the relationship between the functions  and .
2. Rewrite in logarithmic form.

a)  b)  c) 

1. Rewrite in exponential form.

a)  b)  c) 

1. Rewrite (how do you put it in your calculator). Evaluate (find the value).
2. Write how you would say “” if you read it out loud.

**8.2 Apply properties of logs**

Simplify each expression by rewriting as a single logarithm.

1. 
2. 
3. 
4. 
5. 
6. 

Rewrite each expression as a sum or difference of logarithms.

1. 
2. 
3. 
4. 

**8.3 Solve logarithmic and exponential equations**

1. Solve each equation. Where necessary, round answers to the nearest hundredth.

a) b)

c) d) 

e) 3 f)

g) h)

i) j)

k) l) 

m)  n)

o) p)

**8.4 Applications to exponents and logs**

1. The cost of a house is increasing at the rate of 4% each year.
   1. If the house costs $125,000 today, what will the value be in 5 years?
   2. About how long will it take for the house to double in value?
2. The population of Taegu, South Korea, was about 2.65 million in 1991 and was projected to increase at a 3.77% annual rate from 1991 to 1995.
3. Predict the population of Taegu in 1995.
4. If this growth rate continues, when will the population reach 6 million?
5. The value of a home decreases 5% each year. If the homes current value is $414,000, what is the value after 7 years?
6. Bill started a job and earns $18 per hour. If he earns a 3% pay increase each year, how many years will it take him to earn $23.49 per hour?