

1/30/13 log test Review 1

① If  $\log_{10}(x) = -5$ , what is  $x$ ?

② What is the solution of  $3^x = 19$ ?

③ What is the value of  $\log_5(125)$ ?

④ Find an equation that models the growth of the bacteria modeled in the table below.

Day	Bacteria
0	30
1	60
2	120

⑤ Use the Base Change formula to write in log base 10 form:  
 $\log_7(83) =$

⑥ What is  $x$ ?  $\log_2\left(\frac{1}{8}\right) = x$

⑦ Solve for  $x$ :  
 $3^{2x} = 19$

⑧ Solve for  $x$ :  
 $\log(x+1) + \log(x) = \log(20)$

⑨ Simplify:  $\log_4\left(\frac{1}{64}\right)$

⑩ Solve for  $x$  if  
 $\log_x(3) + \log_x(8) = 4$