3B - Calculus for Social and Life Sciences
Week 5

Contact Information	
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1. Fill in the blanks in this table of Laws of Logs and Laws of Exponents, then check them with your partner. TRY TO USE ONLY YOUR BRAIN!

Laws of Exponents	Laws of Logs
$10^a \times 10^b =$ ___	$\log(xy) =$ _____
___ $= 1$	$\log($__$) =$ __
$10^{-a} =$ _____	_____ $= -\log(x)$
$(10^a)^p =$ ___	$\log(x^p) =$ _____
$\frac{10^a}{10^b} =$ ___	$\log\left(\frac{x}{y}\right) =$ _____

Evaluate using logs and antilogs.

2. $\log(4.56)$

3. $\log(999)$

4. log(1 billion)

5. $\log(0.000738)$

6. $\log(2.125)$ [Hint: Linear interpolation]

7. antilog(0.2945)

8. $\sqrt{10}$

9. $10^{0.49}$

10. $10^{2/3}$

11. $(2.25)(8.12)$

12. $\dfrac{-4.33}{2.01}$

13. $\dfrac{1}{5.72}$

14. $\dfrac{2.01}{4.33}$

15. $\left(\dfrac{12 \text{ in}}{1 \text{ ft}}\right)\left(\dfrac{5280 \text{ ft}}{1 \text{ mi}}\right)\left(\dfrac{1 \text{ mi}}{1.609 \text{ km}}\right)$