## 8.R Review

**Last day's Work:** pp. 499–501 #1 to 4, 5ab, 6ab, 7, 10, 13, 14\*, 15 \*#14) 7.5 years

**Previously Assigned Review Work:** 

Begin Review p. 510

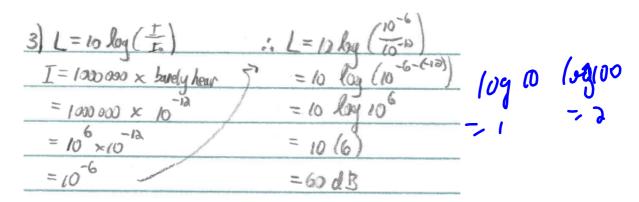
#1c, 2d, 3d\*graph too, 4, 5b, 6b, 8\*, 9, 10abc, 11c, 12, 13

\*the answer for 8d is 3.

\*the answer for 11c is 2.552

Today's Entertainment: p.511 #14bc, 15cd, 17, 18, 19\*, 20, 22 \*the answer for 19 is 4 times or 3.98

+ p.512 Chapter Self-Test (#5 has a typo: it should be y<sup>1/3</sup>. The final answer for #3b should be 2. Finally, in #6 they rounded too early in their solution – the final answer should be 7.827) p. 499 3. A particular sound is 1 000 000 times more intense than a sound you can just barely hear. What is the loudness of the sound in decibels?



p. 499 **4.** The loudness of a heavy snore is 69 dB. How many times as loud as a normal conversation of 60 dB is a heavy snore?

4.	69 ds us 60 dB
	69=10log (I); 60=10log (I)
	6.9 = log (=) 6= log (=)
	10 6.9 = = 10 10 = 70
	Is= 106.9 In = 106 Io
	=: Is = 10 × 16
	IN 10 50
	= 10 6.4-6
	= 10 0,9
	= 7.94 times as long

p. 499 5. Calculate the hydrogen ion concentration of each substance.

- a) baking soda, with a pH of 9
- b) milk, with a pH of 6.6
- c) an egg, with a pH of 7.8
- d) oven cleaner, with a pH of 13

5. 
$$pH = -log[H^{\dagger}]$$

a)  $pH = 9$  baking soda

 $\therefore 9 = -log[H^{\dagger}]$ 
 $-9 = log[H^{\dagger}]$ 
 $[H^{\dagger}] = 10^{-9}$ 
 $= 0.00000000001$ 

- p. 500 7. a) Distilled water has an  $H^+$  concentration of  $10^{-7}$  mol/L. Calculate the pH of distilled water.
  - b) Drinking water from a particular tap has a pH between 6.3 and 6.6. Is this tap water more or less acidic than distilled water? Explain your answer.

7a)[++]= 10-7 pH=-log(10-7)
= 70
b) top water is more
acidic, ble
the lower the pt
the higher the
acidity.
0

p. 501 **14.** How long will it take for \$2500 to accumulate to \$4000 if it is invested at an interest rate of 6.5%/a, compounded annually?

14) A = P(Hi)"
4000 = 2500 (1+.065)"
4000 = 1.065 n
log 1.6 = n log 1.065
n= log 1.6
log 1,065
= 7.96
= 7.5 years
(XBW)

p. 501 **15.** A wound, initially with an area of 80 cm<sup>2</sup>, heals according to the formula  $A(t) = 80(10^{-0.023t})$ , where A(t) is the area of the wound in square centimetres after t days of healing. In how many days will 75% of the wound be healed?

15) $A(t) = 80 (10^{-0.023t})$
75% of 80 cm <sup>2</sup>
: Area of Wound = 80 cm - 60 cm
=30cm2
: 20=80(10-0.0356)
1 = 10 = 36
log = -0,003t log 10
109 4 = t
-0.023 :t=26.17:262 days