

0 Calculator and Math Review

Name _____
Section _____ Locker _____
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1. Solve this set of equations for x and for k .

$$k(220)^x = 0.44$$

$$k(260)^x = 0.52$$

2. Solve for y .

$$\ln\left(\frac{3}{y}\right) = 0.84$$

3. a) fill in the blanks:

T	K	$\frac{1}{T} = x$	$\ln K = y$
273	0.003		
294	0.001		

b) Use this data and the STAT function from your calculator to find the slope, m , and the intercept, b , for the equation:

$$y = mx + b$$

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4. Solve for x in each of the following equations. Obtain *all* roots.

a) $\frac{(1+2x)^2}{(1-x)} = 1.11$

b) $\frac{x^2}{(0.05-x)} = 3.1 \times 10^{-8}$

c) $x(2x)^2 = 3.9 \times 10^{-11}$

5. Determine the positive, non-zero value of $(0.003 - x)$ from the equation:

$$\frac{(0.020 - x)(0.003 - x)}{(0.024 + x)} = 6.6 \times 10^{-9}$$

6. Solve this set of simultaneous equations:

$$3e - 2a - 2b = 0$$

$$c + d = 5$$

$$e - b = 7$$

$$d - a = 0$$

$$3c + e = -2$$