

	A	B	C	D	E	F	G	H	I
1	Linear Regression Example for Excel								
2									
3		Concentration (X)	Absorbance (y)						
4		(ppm)				Diluted unknown absorbance			
5		1.00	0.0455			0.313	measured Y		
6		4.00	0.1867			1	Number of replicates (k)		
7		7.00	0.3271						
8		10.00	0.447			Diluted Solution Concnetration			
9						6.870	derived x (ppm)		
10		LINEST function output				0.207	Std Dev x		
11	slope(m)	0.04483	0.00501	intercept(b)		4.303	t value (for 95% and n - 2 = 2)		
12	Sm	0.001214848	0.00782611	Sb	+/-	0.889	95% CI		
13	R	0.998533443	0.008149448	Sy					
14	Sx = standard error associated with variable x								
15						Original Solution Concnetration			
16	*****					0.1	Dilution factor		
17	B11 box	=LINEST(C5:C8,B5:B8,TRUE,TRUE)				69	Original concentration		
18	Equation	y = 0.0448x + 0.005				9	95% CI		
19									
20		n=	4						
21		mean y	0.2516						
22		sum(x _i - mean x) ²	45						
23									
24	*****								
25	Equations								
26		Function	Cell	Formulas					
27		n=	C20	=COUNT(B5:B8)					
28		mean y	C21	=AVERAGE(C5:C8)					
29		sum(x _i - mean x) ²	C22	=DEVSQ(B5:B8)					
30		derived x	F9	=(F5-C11)/B11					
31		sigma x	F10	=(C13/B11)*SQRT((1/F6)+(1/C20)+((F5-C21)^2/(B11^2*C22)))					
32		95% CI	F12	=F10*F11					
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