

$$4) y = aX^b / \ln$$

$$\ln Y = \ln a + b \ln X$$

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$$Z = A + B U$$

$$Z = \ln Y \quad U = \ln X$$

X	Y	U	Z
0.1	0.001	-2.303	-6.908
0.2	0.003	-1.609	-5.809
0.4	0.062	-0.916	-2.781
0.6	0.350	-0.511	-1.050
0.8	1.180	-0.223	0.166
1.0	3.020	0	1.105
1.2	6.500	0.182	1.872

$$\bar{U} = -0.769$$

$$S_U^2 = 0.706$$

$$S_{UZ} = 2.620$$

$$\bar{Z} = -1.915$$

$$S_Z^2 = 9.911$$

$$\hat{B} = \frac{S_{UZ}}{S_U^2} = 3.712$$

$$\hat{A} = \bar{Z} - \frac{S_{UZ}}{S_U^2} \bar{U} = 0.938$$

$$\ln a = A \rightarrow a = e^A \rightarrow \underline{\underline{\hat{a} = e^{\hat{A}} = 2.555}}$$

$$b = B \rightarrow$$

$$\underline{\underline{\hat{b} = \hat{B} = 3.712}}$$