

$$y = \alpha_4 x e^{\beta_4 x}$$

x	0.1	0.2	0.4	0.6	0.9	1.3	1.5	1.7	1.8
y	0.75	1.25	1.45	1.25	.85	.55	.35	.28	.18

$$\ln(y) = \ln(\alpha_4) + \ln(x) + \beta_4 x$$

$$\ln(y) - \ln(x) = \beta_4 x + \ln(\alpha_4)$$

$$\ln\left(\frac{y}{x}\right) = \beta_4 x + \ln \alpha_4$$

$$y' = \beta_4 x + a', \quad y' = \ln(y/x), \quad a' = \ln(\alpha_4)$$

$$\bar{x} = \frac{8.5}{9} = 0.944, \quad \bar{y}' = \frac{-0.6095}{9} = -0.068$$

$$\beta_4 = \frac{9(-9.0399) - 8.5(-0.6095)}{9(11.45) - (8.5)^2} = -2.473$$

$$a' = -0.068 + 2.473(0.944) = 2.267$$

$$y' = -2.473x + 2.267$$