## **Solution 17.8**

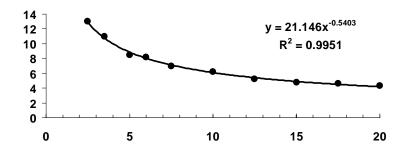
We regress  $log_{10}(y)$  versus  $log_{10}(x)$  to give

$$\log_{10} y = 1.325225 - 0.54029 \log_{10} x$$

Therefore,  $\alpha_2 = 10^{1.325225} = 21.14583$  and  $\beta_2 = -0.54029$ , and the power model is

$$y = 21.14583x^{-0.54029}$$

The model and the data can be plotted as



The model can be used to predict a value of  $21.14583(9)^{-0.54029} = 6.451453$ .

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