

- 57 (a) Using nonlinear regression, a function of the form $f(x) = ba^x$ can be determined. The result is shown in *Figure 57*. We can determine that $C = 1.47338$ and $a = 0.99986$. Thus, the symbolic representation of $f(x) = 1.4734(0.99986)^x$.
- (b) The density at 7000 feet is $f(7000) = 1.4734(0.99986)^{7000} \approx 0.55 \text{ kg/m}^3$. This compares favorably with the actual value of 0.59 kg/m^3 .

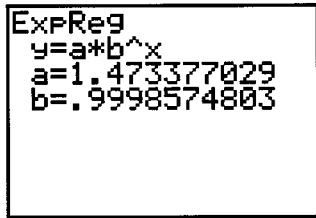


Figure 57