Name_____ Period_____

Section 6-7

Example - One of the strongest earthquakes in history occurred in Mexico City in 1985 and measured 8.1 on the Richter scale. Find the amount of energy, E, released by this earthquake. Use $M = \frac{2}{3}\log\frac{E}{10^{11.8}}$	**Try This -**Suppose that the magnitude of an earthquake measures 7.5 on the Richter scale. Find the amount of energy, E, released by this earthquake. Use $M = \frac{2}{3}\log\frac{E}{10^{11.8}}$
Example - The magnitude of an earthquake found by the equation $M = \frac{2}{3}\log\frac{E}{10^{11.8}}$ where M is the magnitude and E is the energy released. Find the magnitude of an earthquake that released $10^{22.6}$ ergs of energy.	**Example -** The magnitude of an earthquake found by the equation $M = \frac{2}{3}\log\frac{E}{10^{11.8}}$ where M is the magnitude and E is the energy released. Find the magnitude of an earthquake that released $10^{19.3}$ ergs of energy.
Example - The formula for estimating the number, *N*, of a certain product sold is $N = 3300\ln(9t+8)$ where *t* is the number of years after the product is introduced. What is the expected number of sales 8 years after the product is introduced? Round to the nearest whole number.	**Try This -**The formula for estimating the number, *N*, of a certain product sold is $N = 1600\ln(7t+2)$ where *t* is the number of years after the product is introduced. What is the expected number of sales 9 years after the product is introduced? Round to the nearest whole number.