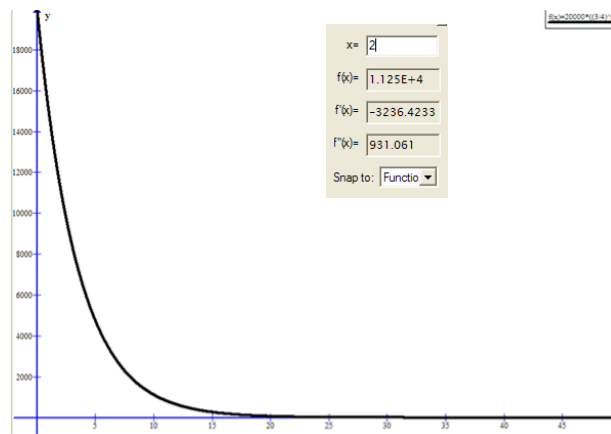
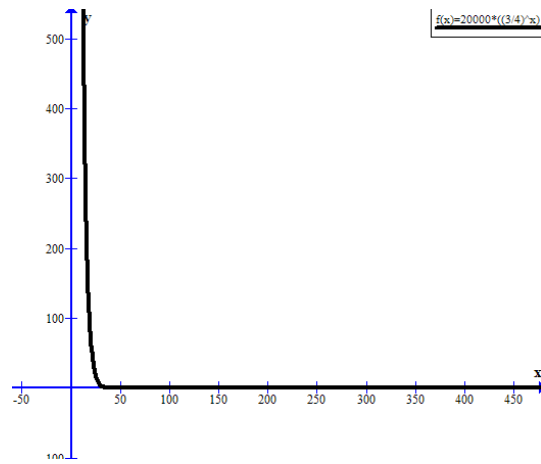


$$A = Pe^{rt} \quad \leftarrow \text{continuously compounded}$$

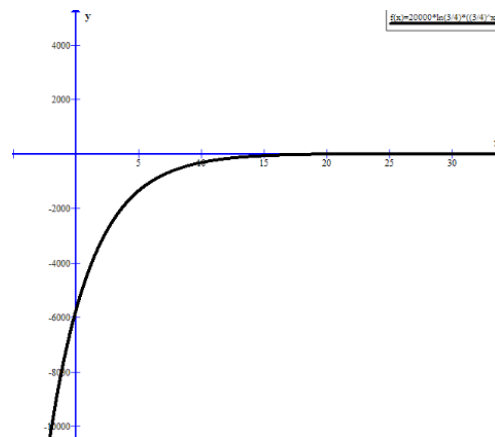
$$A = P \left(1 + \frac{r}{n}\right)^{nt} \quad \leftarrow \text{compounded } n \text{ times per year}$$



$$V(t) = 20,000 \left(\frac{3}{4}\right)^t$$

rate of change @  $t=1, t=4$

$$V'(t) = 20,000 \cdot \ln\left(\frac{3}{4}\right) \cdot \frac{3}{4}^t$$



$$\frac{d}{dx} a^u = \ln a \cdot a^u \cdot du$$