Compound Interest	Exact Half-Life
$$A = P \cdot \left(1 + \frac{APR}{n}\right)^{nY}$$	$$T_h = -\frac{log_{10}2}{log_{10}(1+r)}$$
Logarithm Property	**Exact Doubling Time**
$$log_{10}x^y = y \cdot log_{10}x$$	$$T_d = \frac{log_{10}2}{log_{10}(1+r)}$$
Exponential Growth/Decay Using r	**Exponential Growth Using T_d**
$$Q = Q_0 \cdot (1+r)^t$$	$$Q = Q_0 \cdot 2^{t/T_d}$$
Linear Equation	**Slope of a Line**
$$y = m \cdot x + b$$	$$m = \frac{y_2 - y_1}{x_2 - x_1}$$
Exponential Decay Using T_h	**Surface Area of a Cylinder**
$$Q = Q_0 \cdot 0.5^{t/T_h}$$	$$SA = 2\pi r^2 + 2\pi rh$$
Surface Area of a Sphere	**Area of a Circle**
$$SA = 4\pi r^2$$	$$A = \pi r^2$$

Please remember to use a **negative** *r* for an exponential decay!