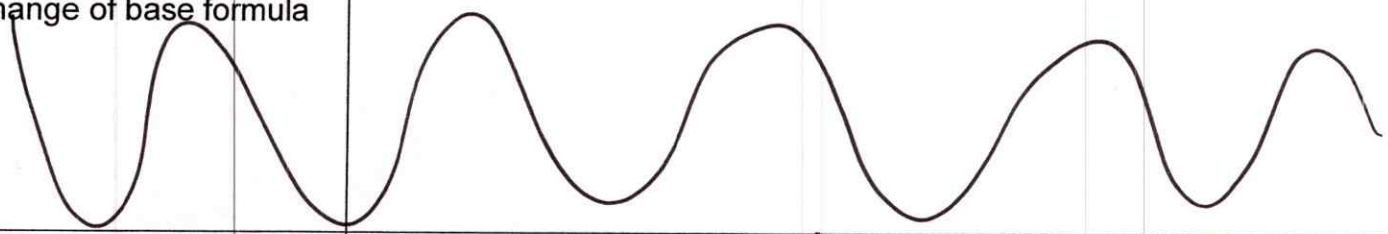
5.3	Properties of Logarithms If $m>0, n>0, b>0$, and $b\neq 1$, and a is any real number	Condensed / Expanded • Product Property: $\log_b m \cdot n = \log_b m + \log_b n$ • Quotient Property: $\log_b m \div n = \log_b m - \log_b n$ • Power Property: $\log_b m^a = a \log_b m$
5.4	Properties of Natural logarithms If $m>0, n>0, b>0$ and $b\neq 1$, and a is any real number	• Product Property: $\ln m \cdot n = \ln m + \ln n$ • Quotient Property: $\ln \frac{m}{n} = \ln m - \ln n$ • Power Property: $\ln m^a = a \ln m$
5.5	Exponential Equation	$y = b^x$ or $y = e^x$
	Change of base formula	
	Logarithmic equation	an equation in the form $y = \log_b x$ OR $y = \ln x$
5.6	Principal	The original amount of money invested or borrowed
	Simple interest	Interest on the principal only
	Interest	the fee for borrowed money or the amount earned on invested money
	Simple Interest Formula	Interest $I = Prt$ (P: principal, t: time, r: rate)
	Compound Interest Formula	$A = P\left(1 + \frac{r}{n}\right)^{n \cdot t}$ A: amount of money after P: principal r: rate t: time n: # of compounding per year
	Continuous Compound Interest	$A = Pe^{rt}$ A: amount of money after P: principal r: rate t: time