Topic 9

Payoff of Call Option:	$\begin{cases} S_T - X & \text{if } S_T > X \\ 0 & \text{if } S_T \le X \end{cases}$
Payoff of Put Option:	$\begin{cases} 0 & \text{if } S_T \ge X \\ X - S_T & \text{if } S_T < X \end{cases}$
Put-Call Parity:	$C + \dfrac{X}{(1+r_f)^T} = S_0 + P,$ where C is call price & P is put price.
Bounds on Call Price:	$\begin{cases} C \ge S_0 - \text{PV}(X) - \text{PV}(D) \\ C \le S_0 \end{cases}$
Hedge Ratio:	$H = \dfrac{C^+ - C^-}{S^+ - S^-},$ where $C^+ (C^-)$ is call price for increased (decreased) stock price.