**Problem 1**

Value assigned to company = 70  
Value prior to discount = 100  
Revenues for the firm = 100  
Operating margin for firm = 10.00%  
Value to Sales Ratio = 1.40  
New Estimated Value = 140  

Illiquidity Discount = 0.30 - 0.04*(ln(Revenues) = 11.58%  

Value after discount = $123.79

**Problem 2**

Levered beta = 0.60 (1 + (1-.4)(2)) = 1.32 ! Debt to Equity ratio = 10/5 = 2  
Cost of Equity = 5% + 1.32(4%) = 10.28%  
Cost of capital = 10.28% (5/15) + 7% (1-.4) (10/15) = 6.23%  

Present value of after-tax rental revenue = $8.06 ! After tax rental income = 0.6 million; PV at 6.23% over 30 years  

NPV of development = 8.06 - 15 = $-6.94

S = PV of cashflows from development = 8.06  
K = Cost of development = 15  
t = Life of the option = 30  
Standard deviation = 25%  
Riskless rate = 5%  
Cost of delay = 3.33% ! 1/ Remaining life of lease

Value of option with these inputs =  
\[ d_1 = 0.5962 \quad N(d_1) = 0.7245 \]  
\[ d_2 = -0.7731 \quad N(d_2) = 0.2197 \]  
Value of call option = $1.41