Spring 2019 Name:

Quiz 3: Valuation

Answer all questions and show necessary work. Please be brief. This is an open book, open notes exam.

1. You are trying to attach a reasonable pricing to Calstar Stores, a mature retail firm that is planning to go public, based upon its characteristics and how the average retail company is being priced. You have been provided with the following information:

	Calstar Stores	Average for retail
EV/Sales	NA	0.96
After-tax Operating Margin	10%	6%
Expected Growth Rate (in perpetuity)	2%	2%
Reinvestment Rate	10%	20%

If the average retail firm is fairly priced, given its fundamentals, and Calstar Stores is expected to have revenues of $500 million next year, estimate a fair pricing for Calstar's operating assets. You can assume that the average retail firm is mature, and that Calstar Stores has the same cost of capital as the average retail company. (3 points)

2. Gemini Corporation is in two businesses, autos and financing, and you have collected information on both (all $ values in millions):

	Gemini Auto	Gemini Capital
Revenues	$ 4,000.00	$ 1,000.00
EBITDA	$ 600.00	NA
Net Income	$ 150.00	$ 150.00
Book Equity	$ 1,600.00	$ 500.00
Book Debt	$ 800.00	$ 1,000.00
Cash	$ 400.00	

Looking at the pricing of other firms in each of the businesses, you have run the following regressions:
For autos: EV/EBITDA = 4.00 + 20.00 (EBITDA/Invested Capital) – 5.00 (Book Debt/ Book Equity)
For financial firms:: PBV = 0.6 + 5.00 (Return on Equity)
(All percentages are entered as decimals, i.e., 15% would be 0.15)
Estimate the value of equity in Gemini Corporation. (3 points)

3. You are the sole owner of a hotel and have received an offer of $100 million for your business from a private (undiversified) buyer, but you are interested in how much you would have been able to get as a fair value offer, if your buyer were a public company. You have collected the following information:

	Private Offer	Public Offer
FCFF (in $ millions)	$ 20.70	$ 20.70
Cost of equity	12.85%	
After-tax cost of debt	5%	3%
Debt/(Debt + Equity)	0%	20%
Cost of capital	12.85%	
Expected growth rate	2.50%	2.50%

If the risk free rate is 2.5% and the equity risk premium is 5.75%, estimate the fair value for your company in a public offer. (The correlation of hotel firms with the market is 0.45 and the marginal tax rate is 25%) (4 points)