Quiz 2: Valuation

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

1. You have been asked to value equity in Vornado Inc. and have been provided with its most recent balance sheet (in $ millions)

Assets		Liabilities & Equity	
Cash	$200	Non-debt Current Liabilities	$150
Other Current Assets	$300	ST Debt	$300
Fixed Assets	$1,500	LT Debt	$650
Minority holdings in other companies	$500	Lease Debt	$250
Goodwill	$750	Equity	$1,500
		Minority Interests	$400
Total	**$3,250**	**Total**	**$3,250**

The firm is expected to generate free cash flow to the firm of $450 million next year, growing at 2% a year in perpetuity, with a cost of capital of 10%. Assuming that the book values of cross holdings is equal to their market value, **estimate the value of equity in the firm.** (3 points)

2. You are reviewing the valuation of Conway Inc., a logistics company that is expected to generate free cashflows to equity of $270 million next year, growing at 3% a year in perpetuity with a cost of equity of 9%). You are given the following additional information:

-There are 450 million shares outstanding in the company, not including 50 million restricted stock units (RSUs) granted in prior years to employees.

-The top managers in the firm have been granted 100 million options, valued at $2.50 an option

Estimate the **value per share in the company**. (2 points)

3. You are trying to value Sensor Chemicals, a mature chemical company, which generated $120 million in after-tax operating income in the most recent year, on the following balance sheet (in $ millions)

Fixed assets	$700	Current liabilities	$100
Non-cash current assets	$150	Debt	$300
Cash	$150	Equity	$600

Sensor will maintain its current return on capital and is expected the following growth rates of operating income for the next three years and beyond.

	1	2	3 & Beyond
Expected growth rate in operating income	12.00%	8.00%	4.00%

Estimate the expected **free cash flows to the firm each year for the next 3 years**. (2 points)

4. You have been asked to complete the valuation of Mohawk Inc, a casino company, a firm that generated $90 million in after-tax operating income on invested capital of $1,2 billion, You have been given the following expected free cash flows to the firm for the next three years

	1	*2*	*3*
Revenues ($ mil)	$1,620.00	$1,749.60	$1,889.57
Operating margin (after-tax)	6.00%	7.50%	9.00%
After-tax Operating income ($ mil)	$97.20	$131.22	$170.06
FCFF	$37.20	$81.22	$130.06

Assuming that Mohawk's cost of capital is 9%, and that the company expects to earn a return on capital equal to what it earns as a return on capital in year 3, in perpetuity, **estimate the terminal value (at the end of year 3)**. (3 points)