

Quiz A: 7/20/16

Name Key

Conventional is considering investing \$37.5 million today in a new retail store. The new store will fall into the 15-year MACRS class and will be built on land Conventional acquired a year ago for \$3 million. This land could be sold today for \$4 million. Conventional expects revenues a year from today to equal \$500 million. In the following years, sales are expected to grow by 2% per year. Conventional estimates that variable costs be the same as at existing stores and thus will equal 75% of revenues that and fixed costs associated with the store will equal \$87.5 million per year. The \$100 million per year spend operating Conventional's corporate headquarters will not change as a result of the new store, but 10% of this cost will be allocated to the new store. Net working capital (in millions) associated with the store will be as follows:

Year	0	1	2	3	4	5
Cash	0.00	30.00	31.31	32.95	32.88	35.30
+ AR	0.00	16.25	16.24	17.56	18.52	18.35
+ Inv	0.00	63.75	66.45	69.20	72.40	73.49
- AP	0.00	62.50	62.95	63.14	67.25	72.73

56.57 56.55

Set up the calculations needed to determine the new store's unlevered net income and free cash flow today and four years from today if Conventional's marginal tax rate equals 35%.

$$UNI_0 = D$$

$$FCF_0 = D + D - (37.5 + (4 - (4-3)(.35))) - D$$

$$UNI_4 = (R_4 - E_4 - D_4)(1 - .35) + 10$$

$$R_4 = 500(1.02)^3 + 11$$

$$E_4 = .75(R_4) + 87.5 + 10$$

$$D_4 = 37.5(0.770) + 11$$

$$FCF_4 = UNI_4 + D_4 - D - \Delta NW C_4 + 10$$

$$\Delta NW C_4 = 56.55 - 56.57 + 12$$