Quiz A for 1:00 Class: 03/27/13 Name Key

Assume Hoops Inc. has outstanding debt that matures for $10,000,000 three years from today.

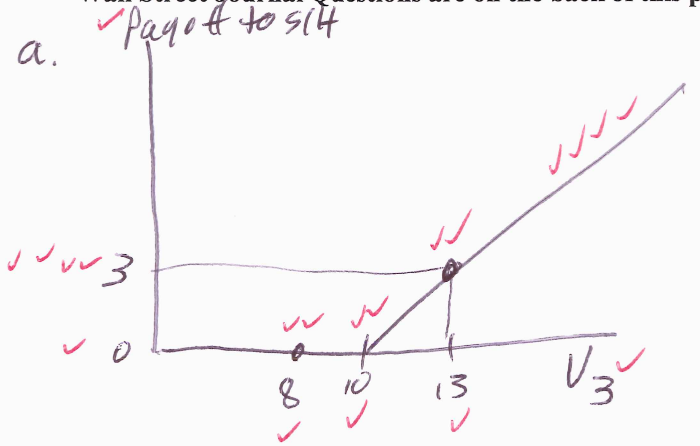
a. Sketch a graph of the potential payoffs on Hoops stock as a function of the value of the firm's assets three years from today. Show the specific payoffs if the value of the firm's assets equal $8,000,000 and $13,000,000 three years from today. Clearly label and identify each payoff.

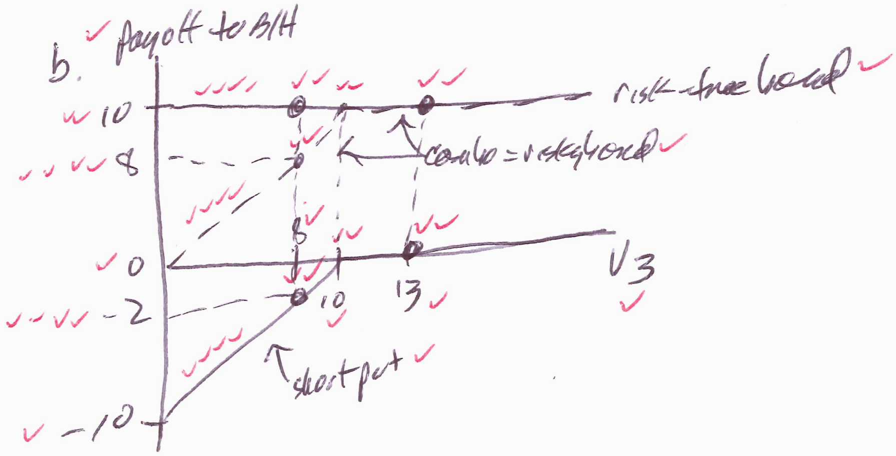
b. From the perspective of viewing Hoops' risky bonds as equivalent to a portfolio of options and risk-free bonds, sketch the payoffs on the portfolio, the risk-free bond, and the options if Hoops' assets end up being worth $8,000,000 and $13,000,000 three years from today. Clearly label and identify each payoff.

c. Assume that due to an acquisition that occurs tomorrow, the volatility of returns on Hoops' assets fall. Explain in terms of options how this drop in volatility affects the value of the firm's outstanding stock and bonds.

Wall Street Journal Questions are on the back of this page.

Scale:
81-82=50
75=49
74=48
73=47
71=46
70=45
67=44
66=43
63=42
62=41
55=39
53=38
50=37
47=36
46=35
44=34
42=33
31=32
29=31
25=30
21=29
10=25

a.


b.


c. ⇒ value of stock = call
⇒ as volatility falls, value of call falls
⇒ value of bond = risk-free bond − put
⇒ as volatility falls, value of put falls
⇒ value of bond rises as subtract smaller number