3. A firm's current balance sheet is as follows:

Assets	$00	Ebt	$0
		Equity	$0

a. What is the firm's weighted-average cost of capital at various combinations of debt and equity, given the following information?

Debt/Assets	After-Tax Cost of Debt	Cost of Equity	Cost of Capital
0%	8%	12%	?
10	8	12	?
20	8	12	?
30	8	13	?
40	9	14	?
50	10	15	?
60	12	16	?

b. Construct a pro forma balance sheet that indicates the firm's optimal capital structure. Compare this balance sheet with the firm's current balance sheet. What course of action should the firm take?

Assets	$00	Ebt	$
		Equity	$

c. As a firm initially substitutes debt for equity financing, what happens to the cost of capital, and why?

d. If a firm uses too much debt financing, why does the cost of capital rise?