Problem 7

McEnroe Corporation and Edberg Corporation each sell tennis equipment. McEnroe Corporation's strategy is to focus on selling quality units at the best possible prices, while attempting to minimize selling, general, and administrative expenses (SG&A). Edberg Corporation has concluded that many customers will differentiate more on brand than quality, and is promoting its inferior goods with a significant marketing campaign.

Study each company's income statement below, and calculate the respective proportion of sales returns, the gross profit margin, and the net profit on sales. Both companies are subject to a 30% tax rate. Assuming no change in SG&A, which company would experience the biggest increase in profit from a 10% increase in net sales? Which company would experience the biggest decline in profit from a 10% decrease in net sales?

MCENROE CORPORATION		
Income Statement		
For the Year Ending December 31, 20X6		
Net sales		
Gross sales	$ 2,837,628	
Less: Sales return	56,754	$ 2,780,874
Cost of goods sold		2,128,221
Gross profit		$ 652,653
Selling expenses	$ 135,000	
General & administrative expenses	360,000	495,000
Income before taxes		$ 157,653
Income tax expense (30%)		47,296
Net income		$ 110,357

BORG CORPORATION		
Income Statement		
For the Year Ending December 31, 20X6		
Net sales		
Gross sales	$ 2,957,628	
Less: Sales return	176,754	$ 2,780,874
Cost of goods sold		1,251,393
Gross profit		$ 1.529,393
Selling expenses	$ 1,011,828	
General & administrative expenses	360,000	1,371,828
Income before taxes		$ 157,653
Income tax expense (30%)		47,296
Net income		$ 110,357

Worksheet 7

McEnroe Corporation

Sales returns rate

Gross profit margin

Net profit margin

Borg Corporation

Sales returns rate

Gross profit margin

Net profit margin

	McEnroe	Borg
10% increase in net sales		
Net sales ($2,780,874 × 110%)	$	$
Cost of goods sold		
Gross profit (net sales × gross profit margin)	$	$
SG&A		
Income before taxes	$	$
Income tax expense (30%)		
Net income	$	$

	McEnroe	Borg
10% decrease in net sales		
Net sales ($2,780,874 × 90%)	$	$
Cost of goods sold		
Gross profit (net sales × gross profit margin)	$	$
SG&A		
Income before taxes	$	$
Income tax expense (30%)		
Net income	$	$

Solution 7

McEnroe Corporation

Sales returns rate	($56,754 ÷ $2,837,628)	2,00%
Gross profit margin	($652,653 ÷ $2,780,874)	23,47%
Net profit margin	($110,357 ÷ $2,780,874)	3,97%

Borg Corporation

Sales returns rate	($176,754 ÷ $2,957,628)	5,98%
Gross profit margin	($1,529,481 ÷ $2,780,874)	55,00%
Net profit margin	($110,357 ÷ $2,780,874)	3,97%

Intuitively, the company with the highest gross profit rate (Borg) would benefit more from an increase in sales (assuming SG&A is not changing). Conversely, Borg will suffer more from a decline in sales. Below is a comparison of effects:

	McEnroe		Borg	
10% increase in net sales				
Net sales ($2,780,874 × 110%)	$	3,058,961	$	3,058,961
Cost of goods sold		2,341,043		1,376,532
Gross profit (net sales × gross profit margin)	$	717,918	$	1,682,429
SG&A		495,000		1,371,828
Income before taxes	$	222,918	$	310,601
Income tax expense (30%)		66,875		93,180
Net income	$	156,043	$	217,421
10% decrease in net sales				
Net sales ($2,780,874 × 90%)	$	2,502,787	$	2,502,787
Cost of goods sold		1,915,399		1,126,254
Gross profit (net sales × gross profit margin)	$	587,388	$	1,376,533
SG&A		495,000		1,371,828
Income before taxes	$	92,388	$	4,705
Income tax expense (30%)		27,716		1,411
Net income	$	64,671	$	3,293