

Mary's Aesthetics

Mary Zin, a cosmetologist, blends and sells a line of face creams through her company Mary's Aesthetics (**MA**). The following is a summary of MA's three products and the planned sales (in units) for the upcoming year.

	Glow	Sparkle	Illuminating	Total
Planned Sales	40,000	60,000	80,000	180,000
Price	\$85.00	\$63.00	\$46.00	
Variable Cost	51.00	35.00	28.00	
Contribution Margin	\$34.00	\$28.00	\$18.00	

Fixed costs at MA amount to \$3,500,000 and MA faces a tax rate of 35%.

Question 1:

Given the above information what is the expected net (after tax) income at MA in the upcoming year?

Question 2:

Assuming that the product mix remains constant as total sales increase or decrease what is the total unit sales and the corresponding unit sales levels of the three products required for MA breakeven?

Question 3

The marketing manager at MA has proposed a marketing campaign that is expected to increase the unit sales of all three products by 5%. What is the most that MA can spend on this campaign without net income falling below the net income in Question 1?

Question 4

Return to the data in Question 1 – that is ignore Question 3 marketing campaign option. Assume now that production at MA is constrained by a blending machine that is used to make the three products. The blending machine has an annual capacity of 72,000 hours. Given the following information what is the production plan that maximizes net income at MA in the upcoming year?

	Glow	Sparkle	Illuminating
Machine hours per unit	0.5	0.4	0.3
Maximum sales (units)	50,000	65,000	100,000