

**Mini-Case:** Speed Shoes is a small company and sells its shoes in one target market. Speed Shoes sell for \$90 a pair with variable costs per shoe of \$20 for materials and labor. The advertising is \$2,000,000 a period and the sales force costs a total \$800,000 each period. The firm is selling 50,000 shoes a month. Market research is \$100,000 and product development costs are \$500,000.

The president is worried that spending \$56 per unit sold on promotion is excessive. The president would like to earn a profit closer to \$800,000 a period and wants to lower the advertising expense to 29% of sales.

Hints:

1. It is a good idea to start by drawing up a rough income or operating statement before doing the following questions.
2. Separate the information about the operating performance from the information about the goals and concerns the president has of the situation.

Selling Price per Unit, P	\$90		
Quantity Sold, Q	50,000		
Revenue, $R = P \times Q$		\$4,500,000	
Variable Cost per Unit, V	\$20		
Cost of Goods Sold, $V \times Q$		\$1,000,000	
Gross Profit Contribution, G		\$3,500,000	
Markup per Unit	\$70		$P/Q = 77.8\%$
Fixed (period) Costs			
Advertising, AD	\$2,000,000		$AD/R = 44.4\%$
Sales Force, SF	\$800,000		$SF/R = 17.78\%$
Total Promotion, TP		\$2,800,000	$TP/R = 6.22\%$
Promotion per Unit sold $TP/Q$	\$56		
Net Marketing Contribution, NMC		\$700,000	$NMC/R = 15.6\%$
Product Development	\$500,000		
Research	\$100,000		
Total Fixed (period) Costs		\$3,400,000	
Net Profit Contribution, Z		\$100,000	$Z/R = 2.22\%$

1) From the Speed Shoes Mini-Case calculate the unit contribution from each sale (aka the dollar markup per pair) towards monthly fixed costs—

- a) \$90
- b) \$70 \*
- c) \$14
- d) \$34
- e) \$2

2) From the Speed Shoes Mini-Case calculate the average cost per unit (also known as the breakeven selling price)

- a) \$70
- b) \$56
- c) \$20
- d) \$76
- e) \$88\*

Answer: Average cost per unit or breakeven price =  $BEP = V + F/Q$

$$BEP = \$20 + (\$3,400,000 / 50,000) = \$20 + \$68 = \$88$$

3) From the Speed Shoes Mini-Case calculate the monthly breakeven volume (in units).

- a) 50,000 units
- b) 40,000 units
- c) 48,572 units \*
- d) 28,572 units
- e) 46,053 units

Answer:  $BEQ = \$3,400,000 / 70 = 48,572$  pairs

4) From the Speed Shoes Mini-Case calculate the current return on sales (ROS) or net profit margin.

- a) 2.2% \*
- b) 77.78%
- c) 44.44%
- d) 62.22%
- e) 15.56%

5) From the Speed Shoes Mini-Case calculate Speed's current advertising budget as a percentage of sales.

- a) 17.78%
- b) 77.78%
- c) 44.44% \*
- d) 350%
- e) 75.56%

6) From the Speed Shoes Mini-Case calculate the selling price that Speed must charge if it wishes to earn a return on sales (ROS) of 18% with its current costs.

- a) \$107.32 \*
- b) \$94.39
- c) \$92.68
- d) \$106.20
- e) \$82.60

Answer: The selling price that Speed must charge if it wishes to earn a return on sales (ROS) of 18%

$$P = BEP / (1 - ROS) = \$88 / (1 - 0.18) = \$107.32$$