

QUESTION
 The following information is taken from the financial statements of ABC Company for the year ended 31st December 2018:
 Sales: 1000 units at \$100 each
 Variable costs: 1000 units at \$60 each
 Fixed costs: \$2000
 Required:
 (a) Calculate the contribution margin ratio.
 (b) Calculate the break-even point in units.
 (c) Calculate the margin of safety in units.
 (d) Calculate the operating leverage.

ANSWER		
(a)	Contribution margin ratio = $\frac{\text{Sales} - \text{Variable costs}}{\text{Sales}}$	$\frac{1000 \times \$100 - 1000 \times \$60}{1000 \times \$100} = \frac{40000}{100000} = 0.4$
(b)	Break-even point in units = $\frac{\text{Fixed costs}}{\text{Contribution margin per unit}}$	$\frac{\$2000}{\$100 - \$60} = \frac{2000}{40} = 50$ units
(c)	Margin of safety in units = $\text{Actual sales} - \text{Break-even sales}$	$1000 - 50 = 950$ units
(d)	Operating leverage = $\frac{\text{Contribution margin}}{\text{Operating income}}$	$\frac{40000}{40000 - 2000} = \frac{40000}{38000} = 1.05$

