Basic Formulae:

1. Sales – Variable Cost = Fixed Cost + Profit or Contribution
2. $\frac{\text{Sales (Sales – Variable Cost)}}{\text{Sales}}$ = Fixed Cost + Profit
3. P/V Ratio = $\frac{\text{Sales – Variable Cost}}{\text{Sales}}$
4. Sales x P/V Ratio = Fixed Cost + Profit
5. Break even sales = $\frac{\text{Fixed Cost}}{\text{P/V Ratio}}$ OR BES x P/V Ratio = Fixed Cost
6. P/V Ratio = $\frac{\text{Fixed Cost}}{\text{Break even sales}}$
7. (BES + MS) x P/V Ratio = Contribution [Total sales = BES + MS]
8. (BES x P/V Ratio) + (MS x P/V Ratio) = Fixed Cost + Profit
9. Margin of Safety x P/V Ratio = Profit
10. P/V Ratio = $\frac{\text{Contribution}}{\text{Sales}}$
11. P/V Ratio = $\frac{\text{Change in profit}}{\text{Change in sales}}$
12. P/V Ratio = $\frac{\text{Change in Contribution}}{\text{Change in sales}}$
13. Profitability = $\frac{\text{Contribution}}{\text{Key factor}}$
14. Margin of Safety = Total sales – BES
15. BES = Total sales – MS
16. Margin of Sales Ratio = $\frac{\text{Total Sales – BES}}{\text{Total Sales}}$

Note: At BEP profit is zero. Prepare income statement for substituting data in the required formula easily.