

# Annuities

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Formula for Finding the Periodic payment( $R$ ), Given  $A$ :

$$R = A / (1 + (1 - (1 + (j/m))^n) / (j/m))$$

# Annuities

Examples: Find the periodic payment of an annuity due of \$70000, payable annually for 3 years at 15% compounded annually.

$$R = 70000 / (1 + [(1 - (1 + (.15)/1))^{-(3-1)} / ((.15)/1)])$$

$$R = 70000 / 2.625708885$$

$$R = 26659.46724$$

# Annuities

Find the periodic payment of an annuity due of

250700, payable quarterly for 8 years at 5%  $R =$

$$250700 / (1 + (1 - (1 + (.05)/4)^{-32}) / ((.05)/4)) R =$$

$$250700 / 26.5692901 R = 9435.71$$

# Break Even Analysis

The Break-Even Point can alternatively be computed as the point where Contribution equals Fixed Costs. The quantity,  $(P - V)$ , is of interest in its own right, and is called the Unit Contribution Margin (C): it is the marginal profit per unit, or alternatively the portion of each sale that contributes to Fixed Costs.

# Break Even Analysis