Important Valuation Engineering Formulas PDF

Formulas
Examples
with Units

List of 17
Important Valuation Engineering Formulas

1) Annual Installment for Sinking Fund Formula

Evaluate Formula

Formula

$$I_a = S \cdot \frac{I_r}{\left(1 + I_r\right)^T - 1}$$

Example

$$60.1504 = 8000 \cdot \frac{10}{\left(1 + 10\right)^3 - 1}$$

2) Annual Installment given Sinking Fund Formula

Evaluate Formula

Formula

$$I_a = I_c \cdot S$$

Example

$$600 = 0.075 \cdot 8000$$

3) Annual Sinking Fund using Sinking Fund Method Formula

Evaluate Formula

Formula

$$S_a = \frac{I_r}{\left(1 + I_r\right)^x - 1}$$

Example

$$0.0833 = \frac{10}{\left(1 + 10\right)^2 - 1}$$

4) Capitalized Value Formula

Evaluate Formula

Formula

$$C_v = R_N \cdot Y$$

Example

$$52800 = 4800 \cdot 11$$

5) Capitalized Value using Profit Based Valuation Formula

Evaluate Formula

Formula

$$C_v = R_N \cdot Y$$

Example

$$52800 = 4800 \cdot 11$$

6) Coefficient of Annual Sinking Fund Formula

Evaluate Formula

Formula

$$I_c = \frac{I_r}{\left(1 + I_r\right)^T - 1}$$

Example

$$0.0075 = \frac{10}{\left(1 + 10\right)^3 - 1}$$

7) Coefficient of Annual Sinking Fund given Sinking Fund Formula

Evaluate Formula

Formula

$$I_c = \frac{I_a}{S}$$

Example

$$0.075 = \frac{600}{8000}$$

8) Gross Rent given Net Rent in Rental Method Formula

Evaluate Formula

Formula

$$R_G = R_N + O$$

Example

$$5320 = 4800 + 520$$

9) Net Income using Profit Based Valuation Formula

Evaluate Formula

Formula

$$NI = g_I - O$$

Example

$$200000 = 200520 - 520$$

10) Net Rent using Rental Method of Valuation Formula

Evaluate Formula

Formula

$$R_N = R_G - O$$

Example

$$4800 = 5320 - 520$$

11) Outgoings using Rental Method Formula

Evaluate Formula

Formula

$$O = R_G - R_N$$

Example

$$520 = 5320 - 4800$$

12) Percentage Rate of Annual Depreciation Formula

Evaluate Formula

Formula

$$P = 1 - \left(\frac{S_c}{OC}\right)$$

Example

$$0.9 = 1 - \left(\frac{350}{3500}\right)$$

13) Rate of Interest given Years Purchase Formula

Evaluate Formula

Formula

$$I_r = \frac{100}{Y}$$

Example

$$9.0909 = \frac{100}{11}$$

14) Rate of Sinking Fund given YP Formula

Evaluate Formula

Formula

$$I_s = \left(\frac{1}{Y}\right) - I_p$$

Example

$$0.0109 = \left(\frac{1}{11}\right) - 0.08$$

15) Sinking Fund for Buildings Formula

Evaluate Formula

Formula

$$S = \frac{I_a}{I_c}$$

Example

$$8000 = \frac{600}{0.075}$$

16) Years Purchase Formula

Evaluate Formula

Formula

$$Y = \frac{100}{I_r}$$

Example

$$10 = \frac{100}{10}$$

17) Years Purchase when Sinking Fund is Recovered Formula

Evaluate Formula

Formula

$$Y = \frac{1}{I_p + I_s}$$

Example

$$11.0011 = \frac{1}{0.08 + 0.0109}$$

Variables used in list of Valuation Engineering Formulas above

- C_v Capitalized Value
- g_I Gross Income
- I_a Annual Installment
- I_c Coefficient of Sinking Fund
- I_p Rate of Interest on Capital
- I_r Rate of Interest
- I_s Rate of Sinking Fund
- **NI** Net Income
- **O** Outgoings of Repairs
- **OC** Original Cost
- **P** Percentage Rate of Annual Depreciation
- R_G Gross Rent
- R_N Net Rental Income
- **S** Sinking Fund
- S_a Annual Sinking Fund
- S_c Scrap Value
- **T** Number of Years Money is Invested
- **x** Life of Asset in Years
- **Y** Years Purchase

Download other Important Construction Practice, Planning and Management PDFs

- Important Basic Formulas in Construction Planning and Management
- Important Construction Management Formulas
- Important Project Evaluation and Review Technique Formulas
- Important Valuation Engineering Formulas

Try our Unique Visual Calculators

- Percentage share
- HCF of two numbers
- Improper fraction

Please SHARE this PDF with someone who needs it!

This PDF can be downloaded in these languages

English Spanish French German Russian Italian Portuguese Polish Dutch

7/8/2024 | 9:32:51 AM UTC