

Important Formulas of Simple Interest PDF



Formulas Examples with Units

List of 10 Important Formulas of Simple Interest

1) Annual Simple Interest Formulas

1.1) Annual Rate of Simple Interest Formula

Formula

$$r_{\text{Annual}} = \frac{100 \cdot SI_{\text{Annual}}}{P_{\text{Annual}} \cdot t_{\text{Annual}}}$$

Example with Units

$$10 = \frac{100 \cdot 200}{1000 \cdot 2 \text{Year}}$$

Evaluate Formula 

1.2) Final Amount of Simple Interest Formula

Formula

$$A_{\text{Annual}} = P_{\text{Annual}} \cdot \left(1 + \frac{r_{\text{Annual}} \cdot t_{\text{Annual}}}{100} \right)$$

Example with Units

$$1200 = 1000 \cdot \left(1 + \frac{10 \cdot 2 \text{Year}}{100} \right)$$

Evaluate Formula 

1.3) Principal Amount of Simple Interest Formula

Formula

$$P_{\text{Annual}} = \frac{100 \cdot SI_{\text{Annual}}}{r_{\text{Annual}} \cdot t_{\text{Annual}}}$$

Example with Units

$$1000 = \frac{100 \cdot 200}{10 \cdot 2 \text{Year}}$$

Evaluate Formula 

1.4) Simple Interest Formula

Formula

$$SI_{\text{Annual}} = \frac{P_{\text{Annual}} \cdot r_{\text{Annual}} \cdot t_{\text{Annual}}}{100}$$

Example with Units

$$200 = \frac{1000 \cdot 10 \cdot 2 \text{Year}}{100}$$

Evaluate Formula 

1.5) Time Period of Simple Interest Formula

Formula

$$t_{\text{Annual}} = \frac{100 \cdot SI_{\text{Annual}}}{P_{\text{Annual}} \cdot r_{\text{Annual}}}$$

Example with Units

$$2 \text{Year} = \frac{100 \cdot 200}{1000 \cdot 10}$$

Evaluate Formula 

2) Semi Annual Simple Interest Formulas

2.1) Final Amount of Semi Annual Simple Interest Formula

Formula

Evaluate Formula 

$$A_{\text{Semi Annual}} = P_{\text{Semi Annual}} \cdot \left(1 + \frac{2 \cdot r_{\text{Semi Annual}} \cdot t_{\text{Semi Annual}}}{100} \right)$$

Example with Units

$$16000 = 10000 \cdot \left(1 + \frac{2 \cdot 20 \cdot 1.5 \text{ Year}}{100} \right)$$

2.2) Principal Amount of Semi Annual Simple Interest Formula

Formula

Example with Units

Evaluate Formula 

$$P_{\text{Semi Annual}} = \frac{SI_{\text{Semi Annual}} \cdot 100}{2 \cdot r_{\text{Semi Annual}} \cdot t_{\text{Semi Annual}}}$$

$$10000 = \frac{6000 \cdot 100}{2 \cdot 20 \cdot 1.5 \text{ Year}}$$

2.3) Semi Annual Rate of Simple Interest Formula

Formula

Example with Units

Evaluate Formula 

$$r_{\text{Semi Annual}} = \frac{SI_{\text{Semi Annual}} \cdot 100}{2 \cdot P_{\text{Semi Annual}} \cdot t_{\text{Semi Annual}}}$$

$$20 = \frac{6000 \cdot 100}{2 \cdot 10000 \cdot 1.5 \text{ Year}}$$

2.4) Semi Annual Simple Interest Formula

Formula

Evaluate Formula 

$$SI_{\text{Semi Annual}} = \frac{2 \cdot P_{\text{Semi Annual}} \cdot r_{\text{Semi Annual}} \cdot t_{\text{Semi Annual}}}{100}$$

Example with Units

$$6000 = \frac{2 \cdot 10000 \cdot 20 \cdot 1.5 \text{ Year}}{100}$$

2.5) Time Period of Semi Annual Simple Interest Formula

Formula

Example with Units

Evaluate Formula 

$$t_{\text{Semi Annual}} = \frac{1}{2} \cdot \frac{SI_{\text{Semi Annual}} \cdot 100}{P_{\text{Semi Annual}} \cdot r_{\text{Semi Annual}}}$$

$$1.5 \text{ Year} = \frac{1}{2} \cdot \frac{6000 \cdot 100}{10000 \cdot 20}$$



Variables used in list of Important Formulas of Simple Interest above

- **A_{Annual}** Final Amount of Simple Interest
- **A_{Semi Annual}** Final Amount of Semi Annual SI
- **P_{Annual}** Principal Amount of Simple Interest
- **P_{Semi Annual}** Principal Amount of Semi Annual SI
- **r_{Annual}** Annual Rate of Simple Interest
- **r_{Semi Annual}** Semi Annual Rate of Simple Interest
- **SI_{Annual}** Simple Interest
- **SI_{Semi Annual}** Semi Annual Simple Interest
- **t_{Annual}** Time Period of Simple Interest (Year)
- **t_{Semi Annual}** Time Period of Semi Annual SI (Year)

Constants, Functions, Measurements used in list of Important Formulas of Simple Interest above

- **Measurement: Time** in Year (Year)
Time Unit Conversion 



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