

T.I.P

TECHNOLOGICAL INSTITUTE  
OF THE PHILIPPINES

Account

Dashboard

Courses

Groups

Calendar

Inbox

History

Help

- Home
- Modules
- Conferences
- Announcements
- Grades
- Office 365
- Chat
- T.I.P. Manila Library  
Video Presentation
- [SHS ONLY] Senior  
Highschool Teachers  
Online Class  
Performance  
Evaluation (Manila:  
Part 5)[Required]
- Student Perception  
on Limited F2F  
Survey (Required)

## 2.1 Rates of Interest



### Intended Learning Outcomes

At the end of the lesson, the student shall be able to:

1. Differentiate the difference between the nominal and effective rate of interest.
2. Apply the formulas/equations in interest rates to solve word problems.

### Nominal Rate of Interest & Effective Interest Rate

**Nominal rate of interest** is also defined as a **stated** interest rate. This interest works according to the simple interest and does not take into account the compounding periods. For example, a nominal annual interest rate of 12% based on monthly compounding means a 1% interest rate per month (compounded). It is equal to the periodic interest rate times the number of periods per year.

The nominal rate of interest specifies the rate of interest and a number of interest periods in one year.

$$i = \frac{i_n}{m}$$

- Compounding period; (m)

	m
Annually	1
Semi-annually	2
Quarterly	4
Monthly	12
Daily	365

**Effective rate of interest** is defined as the actual or the exact rate of interest earned on the principal during a one-year period. It is the one that caters to the compounding periods during a payment plan.

$$i_e = (1 + i)^m - 1$$

$$i_e = \left(1 + \frac{i_n}{m}\right)^m - 1$$



### Proprietary Clause

Property of the Technological Institute of the Philippines (T.I.P.). No part of the materials made and uploaded in this learning management system by T.I.P. may be copied, photographed, printed, reproduced, shared, transmitted, translated or reduced to any electronic medium or machine-readable form, in whole or in part, without prior consent of T.I.P.