Second Semester SY 2020-2...

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)

Immersive Reader

2.2 Compound Interest

COMPOUND INTEREST

Engr. Feb June R. Gogola

Intended Learning Outcomes

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

1. Differentiate the difference between simple and compound interest.
2. Apply the formulas/equations in compound interest to solve word problems.

Compound interest

In calculations of compound interest, the interest for an interesting period is calculated on the principal plus total amount of interest accumulated in previous periods. This compound interest means "interest on top of interest".

Future Amount

$$F = P(1+i)^n$$

$$F = P\left(1 + \frac{i_n}{m}\right)^{mn}$$

where:

$P = prinicpal\ or\ present\ amount$

$i = interest\ per\ period$

$n = no.\ of\ interest\ periods$

$(1+i)^n = single\ payment\ compound\ amount\ factor$

Present Amount

$$P = \frac{F}{(1+i)^n}$$

where:

$\frac{1}{(1+i)^n} = single\ payment\ present\ worth\ factor$

Period	Principal	Interest	Total Amount
1	P	Pi	$P + Pi$ $= P(1+i)$
2	$P(1+i)$	$[P(1+i)]\,i$	$P(1+i) + [P(1+i)]\,i$ $= [P(1+i)](1+i)$ $= P(1+i)^2$
3	$P(1+i)^2$	$P(1+i)^2 i$	$P(1+i)^2 + P(1+i)^2 i$ $= \left[P(1+i)^2\right](1+i)$ $= P(1+i)^3$

Proprietary Clause