FMP10 Name: _____
Date: _____

Unit 7: Personal Finance
7.3 Compound Interest

Interest: Money earned on an investment OR money owed on a loan

Simple Interest

- Interest calculated as a percentage of the original amount

$$I = Prt$$

$I = interest$
$P = principal\ (original\ amount)$
$r = rate\ (yearly)$
$t = time\ (years)$

Ex. Calculate the simple interest earned on a $2000 investment for 2 years at 7.2% per annum.

Compound Interest

- Interest is added on to the principal at preset periods (called compounding periods)

Ex. Track an investment of $1000 earning interest at 1% per annum compounded annually for 6 years.

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

$A = total\ amount\ (not\ just\ interest)$
$P = principal\ (original\ amount)$
$i = interest\ rate\ \boldsymbol{per}\ compounding\ period$
$n = \boldsymbol{total}\ number\ of\ compounding\ periods$

Ex. Calculate the interest earned on a $2000 investment for 3 years at 7.2%/a compounded semi-monthly.

Ex. Calculate the final value of a $5000 investment after 10 years at 8%/a compounded quarterly.

Ex. You need to borrow $15,000 which you will pay back after 2 years. Which of the following options should you take?
Option A: 12%/a compounded annually Option B: 11.7%/a compounded bi-weekly

Practice: Personal Finance Duotang pg. 542/18 – 30, 32, 33