

**Are there any Homework Questions you would like to see on the board?**

pp. 498-500 # 1, 3, 4ac, 5, 7, 9, 10

## Today's Learning Goal(s):

By the end of the class, I will be able to:

- a) master the concepts presented in this unit.

3. Determine the amount of each annuity.

- a) Regular deposits of \$500 every 6 months for 4 years at 8%/a compounded semi-annually
- b) Regular deposits of \$200 every month for 8 years at 10%/a compounded monthly

a)

$$R = 500$$

$$i = \frac{0.08}{2}$$

$$= 0.04$$

$$n = 4 \times 2$$

$$= 8$$

$$A = \frac{R[(1+i)^n - 1]}{i}$$

$$= \frac{500 \left[ \left(1 + \frac{0.08}{2}\right)^8 - 1 \right]}{\frac{0.08}{2}}$$

$$= \frac{500 \left[ (1.04)^8 - 1 \right]}{0.04}$$

$$= 4607.113$$

$$= \$4607.11$$

b)

$$A = \frac{200 \left[ \left(1 + \frac{0.10}{12}\right)^{96} - 1 \right]}{\frac{0.10}{12}}$$

$$= 29\,236.215$$

$$= \$29\,236.22$$

MCF 3MI

## 8.R Unit 8 Review

Date: June 5/19**Simple Interest**

$$A = P + I$$

where  $I = Prt$

$I$ =Interest (\$Value)

$P$ =Principal (\$Value)

$r$ =rate of interest (as a **decimal**)

$t$ =time (in **years**)

$$I = Prt$$

$$A = P + I$$

$$= P + Prt$$

$$A = P(1 + rt)$$

$$P = \frac{A}{(1 + rt)}$$

vs.

**Compound Interest**

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

$$FV = PV(1 + i)^n$$

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

$A$ =Amount (\$Value) at the end

$i$ =interest **per compounding period**

$n$ =number of **compounding periods**

$$A = \frac{R \left[ (1 + i)^n - 1 \right]}{i}$$

$A$  is the amount or future value

$R$  is the deposit or payment

$i$  is the interest rate per compounding period

$n$  is the total number of deposits

Know the compounding period names/times per year:

annually	1
semi-annually	2
quarterly	4
monthly	12
weekly	52
daily	365

**Revisit Today's Learning Goals**

**Today's Homework:**

p. 522 # 1 – 11

**Continue completing your UNIT ASSIGNMENT!!**

**It is due TOMORROW, Thursday, June 6th, 2019**

**The UNIT 8 Quiz will be on Tuesday, June 11th, 2019**