Date: _____

Begin with **SWYK 8.1** (formative),
then correct in class.

Today's Learning Goal(s):

By the end of the class, I will be:

a) ready for the Unit 8 Summative.

Last day's work: pp. 520-521 #1, 2b, 3ac, 5, 7

Formulae

Simple Interest

$I = Prt$

$A = P(1 + rt)$

$A = P + I$

$I = A - P$

Compound Interest

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

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

Annuity

$$S_n = \frac{a(r^n - 1)}{r - 1}$$

Future Value

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

Present Value

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

8.R2 Review (Day 2)

Date: _____

Ex.1 Note the rounding error.

$R = 28$

$i = \frac{.08}{12} = ?$

$n = 35 \times 12 = 420$

$$FV = \frac{28\left((1+i)^{420}-1\right)}{i}$$

$$= \frac{28\left(\left(1+\frac{1}{150}\right)^{420}-1\right)}{\left(\frac{1}{150}\right)}$$

$$= 57,347.06$$

$\frac{.08}{12} = \frac{8}{1200} = \frac{1}{150} = i$

OR if $i = .0066$

$$FV = \frac{28\left(1.0066^{420}-1\right)}{.0066}$$

$$= 56,233.37$$

more than $1000 different due to rounding.

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

Last day's work: pp. 520-521 #1, 2b, 3ac, 5, 7

Today's Homework Practice includes:

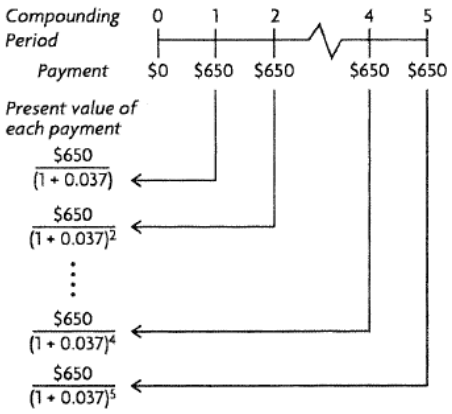
Be fully prepared for

Thursday's **Unit 8 Summave** !

pp. 534-535 #1 – 15, 17
p. 536 #1 – 5

8.5 Annuities: Present Value, pp. 520–522

1. a) i) There are 5 payments: $i = 3.7\%/a$ compounded annually



ii) $PV = 650(1.037)^{-1} + 650(1.037)^{-2} + 650(1.037)^{-3} + \cdots + 650(1.037)^{-5}$

iii) $PV = 650 \times \dfrac{1 - 1.037^{-5}}{0.037} = \$2918.24$

$PV = \frac{650}{1.037^5} + \frac{650}{1.037^4} + \frac{650}{1.037^3} + \frac{650}{1.037^2} + \frac{650}{1.037^1}$

$a = \frac{650}{1.037^5}$ $r = 1.037$