Today's Learning Goal(s):

Date: _____

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

a) calculate the "present value" of an amount being charged or earning compound interest.

Last day's work: pp. 481-482 #5 – 10

pp. 490-492 #4 – 9, 11, 14 [20]

8.3 Compound Interest (Present Value)

From last day:

Date: _____

Simple Interest
A = P(1 + rt)
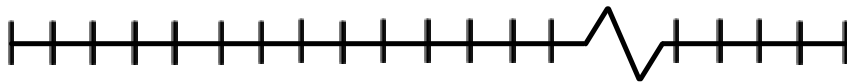**I = Prt**

Compound Interest
   A = P(1 + i)^n
i = interest rate per compounding period
n = number of compounding periods

Ex.1 Congratulations! You just had a baby girl. You want to to have $30 000 for her education in 18 years. Determine the how much would you have to invest today at 8%/a compounded semi-annually.

∴ you would have to invest _____ today to have $30 000 in 18 years.

Note: <mark>Present value</mark> is the principal that would have to be invested now
      to get a specific future amount (value) in a certain amount of time.
      PV is used for present value instead of P, since P is used for principal.

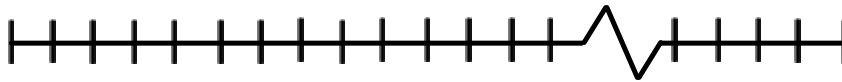Discuss: A = P(1 + i)^n vs.   A = PV(1 + i)^n vs.   FV = PV(1 + i)^n

$$PV = \frac{A}{\left(1+i\right)^{n}}$$ or $$PV = A(1 + i)^{-n}$$

Ex.2

A local furniture company allows you to buy a living room set worth $5000,
if you agree to pay them $8950 in 5 years.
Determine the annual interest rate, if interest will becompounded semi-annually.

∴ the annual interest rate being charged is _____ /a, compouned semi-annually.

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

Last day's work: pp. 481-482 #5 – 10

pp. 490-492 #4 – 9, 11, 14 [20]

Read the Key Ideas/Need to Know p.497

Study: Unit 7 Summative tomorrow!!

Today's Homework Practice includes:

pp. 498-499 #3 – 6, 8, 9, 11