Today is 9/26/17
You will need your notes and a graphing calculator today

Agenda:

Brain teaser

Review

Test Tomorrow

I=prt   **p. 19**

1. Calculate the simple interest on $3,750 at 7% for 10 years.

   I=(3750)(.07)(10)=$2625

2. Calculate the total balance using simple interest on $8,500 at 4.5% for 6 months.

   I=(8500)(.045)(1/2)=$191.25

   T=8500+191.25=$8691.25

3. Determine the total balance and interest after 9 years on $12,000 ~~compounded~~ quarterly with an annual interest rate of 6%.

   $N = 4 \cdot 9 = 36$
   $I = 6$
   $PV = 12,000$
   $PMT = 0$
   $FV = ?$
   $P/Y = 4$
   $C/Y = 4$

   $20,509.67$

Practice   p.21

1) How much money will you have in you invest $5,000 at 5% interest for 10 years? (Simple interest)

$$I=(5000)(.05)(10)=\$2500$$

Total= $ __7500__   Interest= $ __2500__

2) How much money will you have if you invest $5,000 at 5% interest for 10 years compounded quarterly? (Compound interest)

Total= $ __8218.10__   Interest= $ __3218.10__

$N = 40$
$I = 5$
$Pv = 5,000$
$Pmt = 0$
$Fv =$
$P/Y = 4$
$C/Y = 4$

p.22

3) How much money will you have if you invest $400 at 8% interest for 6 years?

$$I=(400)(.08)(6)=\$192$$

Total= $ _592_   Interest= $ _192_

p.26

Practice with the Finance App.

Compute the **Future Value** and Interest earned for each of the following using the Finance App. In the 2nd Row, add the letters for your variable list. The first is done for you.

*PMT=0

Principle	Rate		Time	Future Value	Interest Earned
PV	**I**	**CY/PY**	**N**	**FV**	FV – PV
$2000	5% compounded semiannually 2	× 1 yr =2		$2101.25	$101.25
$4000	$5\frac{1}{4}$% compounded semiannually 2 5.25	×2 yrs =4		$4436.83	$436.83
$500	7% compounded quarterly 4	× 4 yrs =16		$659.96	$159.96
$6500	$6\frac{1}{2}$% compounded quarterly 4 6.5	× 3 yrs =12		$7887.15	$1387.15
$7000	5% compounded monthly 12	× 2.5 yrs =30		$7929.98	$929.98

Compute the **Monthly Payment, Interest** and **Total Amount Repaid** for each of the following using the Finance App. In the 2nd Row, add the letters for your variable list. The first is done for you. Remember FV will be 0.

Use BEGIN   **Assume compounded monthly**

Amount Borrowed	APR		Time (years)	Monthly Payment	Total Amount Repaid	Interest Earned
PV	I	compounded	N	PMT	= Time * Monthly Payment (N)	=Total – Amount Borrowed
$2000	15% monthly	$\times 12$	5 yrs =60	$46.99	$2819.40	$819.40
$4000	$5\frac{1}{4}$% monthly		2 yrs =24	$175.17	$4204.08	$204.08
$500	7% monthly		4 yrs =48	$11.98	$575.04	$75.04
$6500	$6\frac{1}{2}$% monthly		3 yrs =36	$198.15	$7133.40	$633.40

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