$$I = Prt$$

$$139.5 = (930)(0.06)t$$

$$\frac{139.5}{55.8} = \frac{55.8t}{55.8}$$

$$2.5 = t$$

$\therefore$ It would 2.5 years

$I = 139.5$

$P = 930$

$r = 0.06$

$t = ?$

t =

Compound Interest

Annual Compound Interest:

$$\_\_\_\_\_ = \_\_\_\_\_ \left(\_\_\_\_\_ + \frac{\_\_\_\_\_}{\_\_\_\_\_} \right) \_\_\_\_\_$$

A =

P =

r =

n =

t =

Present Value

Present Value:

$$\_\_\_\_\_ = \_\_\_\_\_ \left(\_\_\_\_\_ + \frac{\_\_\_\_\_}{\_\_\_\_\_} \right) - \_\_\_\_$$

PV =

t =

Compound Interest

Annual Compound Interest: Interest calculated on the initial principal (starting amount) AND also on the accumulated interest of previous periods

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$

A = The future value, included interest

P = The principal (start)

r = The interest rate per year (decimal form)

n = . The number of times that the interest is compounded per year

t = The number of years the money is invested or borrowed

Present Value

Present Value:

_____ = _____ (_____ + _____) - ____

PV =

Math 11C Name_____

Compound Interest

Date_____

Show formula and work to find the total value of the investment after the time given.

1) $52,400 at 12% compounded quarterly for 2 years

2) $53,900 at 15% compounded quarterly for 1 year

3) $28,000 at 14% compounded quarterly for 5 years

4) $21,000 at 7% compounded annually for 8 years

$P = 52,400$ $A = P\left(1 + \frac{r}{n}\right)^{nt}$

$r = 0.12$ $A = 52400\left(1 + \frac{0.12}{4}\right)^{4\times 2}$

$n = 4$

$t = 2$ $A = 52400(1.03)^{8}$

$A = 52400(1.2667)$

$A = \$66,378.75$

4)

$P = 21,000$

$r = 0.07$

$n = 1$

$t = 8$

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$

$$A = 21000\left(1 + \frac{0.07}{1}\right)^{8}$$

$$A = 21000(1.07)^{8}$$

$$A = \$36,081.91$$

→ Finish Simple Interest

→ #1-12 Compound Interest