

## Notes 8.4 Annuities, Stocks, and Bonds

Annuity –

Value of an annuity –

### Example 1

You deposit \$2000 into a savings plan at the end of each year for three years. The interest rate is 10% per year compounded annually. (Formula on page 469)

a. Find the value of the annuity after three years.

N =

I% =

PV =

PMT =

FV =

b. Find the interest

P/Y =

C/Y =

### Example 2

You deposit \$3000 into an IRA at the end of each year for the next 40 years. If you can count on an interest rate of 8% per year compounded annually. (Formula on page 470)

a. How much will you have from the IRA after 40 years?

N =

I% =

PV =

PMT =

FV =

b. Find the interest.

P/Y =

C/Y =

### Example 3

At age 30, to save for retirement, you decide to deposit \$100 at the end of each month into an IRA that pays 9.5% compounded monthly. (Formula on page 471)

a. How much will you have from the IRA when you retire at age 65?

N =

I% =

PV =

PMT =

FV =

P/Y =

C/Y =

b. Find the interest.

Ordinary annuities -

Annuity due -

### Example 4

Parents of a baby girl are in a financial position to begin saving for her college education. They plan to have \$100,000 in a college fund in 18 years by making regular, end-of-month deposits in an annuity that pays 9% compounded monthly. (Formula on page 473)

a. How much should they deposit each month?

N =

I% =

PV =

PMT =

FV =

P/Y =

C/Y =

b. How much of the \$100,000 college fund comes from deposits and how much comes from interest?

Read Pages 474-476 (Investments, Stocks, Bonds, Reading Stock Tables). Take Notes

Investments

Stocks

Bonds

Reading Stock Tables

### Example 5

Use the stock table for Coca Cola to solve parts (a) through (h).

52-Week High	52-Week Low	Stock	SYM	Div	Yld %	PE	Vol 100s	Hi	Lo	Close	Net Chg
63.38	42.37	Coca Cola	CocaCl	.72	1.5	37	72032	49.94	48.33	49.50	+0.03

- What were the high and low prices for the past 52 weeks?
- If you owned 3000 shares of Coca Cola stock last year, what dividend did you receive?
- What is the annual return for dividends alone? How does this compare to a bank account offering a 3.5% interest rate?
- How many shares of Coca Cola were traded yesterday?
- What were the high and low prices for Coca Cola shares yesterday?
- What was the price at which Coca Cola shares traded when the stock exchange closed yesterday?
- What does the value or symbol in the net change column mean?
- Compute Coca Cola's annual earnings per share using

$$\text{Annual Earnings per share} = \frac{\text{Yesterday's closing price per share}}{\text{PE ratio}}$$