

Lesson 8: Investing

Pre-Lesson Vocabulary Practice

On the right are some terms from this lesson that are not defined in the text. Find the terms in the lesson, and read the surrounding sentences to try to better understand their meanings. Finally, match the terms on the right with their definitions below.

- ___ ① someone, such as a stockbroker, who gives advice or counsel
- ___ ② is complete after a fixed amount of time
- ___ ③ places where stocks are bought and sold
- ___ ④ equitable claims, stocks
- ___ ⑤ a person who buys and sells stocks for investors
- ___ ⑥ persons who invest
- ___ ⑦ an amount gained or earned after any deductions or charges
- ___ ⑧ a shared holding or ownership
- ___ ⑨ to put money in a transaction in order to get a financial return
- ___ ⑩ money that a person makes or earns
- ___ ⑪ three-month segments of a calendar year
- ___ ⑫ putting money in a transaction, the transaction itself

- a. financial return
- b. to invest
- c. investing / investment
- d. investors
- e. an equitable claim
- f. shares
- g. stockbroker / broker
- h. an advisor
- i. exchanges
- j. quarters
- k. matures
- l. net profit

Carefully read the line from the newspaper stock page and the information about it on pages 82–83. Then write the correct letter in each blank.

52-Week			Yld			Sales				
High	Low	Stock	Div.	%	P/E	100s	High	Low	Last	Chg.
27.11	15.54	MLX	.30	1.2	26	5254	25.85	24.90	25.84	+0.26
13 ___		14 ___	15 ___	16 ___	17 ___		18 ___	19 ___	20 ___	

- a. amount a company expects to pay for each share
- b. difference between the last price of the stock on the previous day and the last price on the current trading day
- c. Marlex
- d. highest value of the stock in the past year
- e. yield—the annual dividend divided by the closing price
- f. the price-to-earnings ratio
- g. the lowest price of a share of Marlex for the day
- h. last trading price for the day—closing price

Answers are on page 262.

Lesson 8

Investing

A consumer **invests** money in order to get a financial **return**. There are many books, magazines, and newspaper articles that give readers tips on how to invest their money. But the basic mathematics of investing is simple. The goal for an investor is to buy for less and sell for more. The specialized vocabulary used by **investors** and their **advisors** can be overwhelming at first. In this lesson you will learn some of the basic terms about investing.

Four popular forms of investment are stocks, bonds, certificates of deposit (CDs), and mutual funds.

A **stock** is a partial ownership of a company. The term **equities** is sometimes used for stock. The term means that the owner of a stock has an **equitable claim** on the company. Suppose a drug company called Curall issues 18,000,000 shares of stock. An investor who buys 18 **shares** of Curall stock owns $\frac{18}{18,000,000}$ or one millionth of the company.

Example 1 Maria bought 100 shares of Curall at 12.6. She sold the shares three years later at 16.45. What is the difference between the price she paid for her shares of Curall and the price she received when she sold the shares?

Solution The number 12.6 means that one share of Curall cost \$12.60 when Maria bought the stock. She paid:

$$100 \times 12.6 = \$1,260$$

She sold the stock for:

$$100 \times 16.45 = \$1,645$$

The difference between the selling price and the purchase price is:

$$\$1,645 - \$1,260 = \$385$$

Stocks are usually **traded** (bought and sold) through a **stockbroker** (often called a **broker**) who charges a **commission**, a fee for buying or selling stocks. The fee is sometimes a flat charge plus a percent of the **gross**. The gross is the total amount of the **transaction** (either buying or selling) before the commission is calculated. Remember to add the commission to the cost of buying a stock and to subtract the commission from the selling price.

Example 2 To sell her Curall stock, Maria used a broker who charged $\$17.00 + .006 \times \text{gross}$. Calculate the amount Maria will receive for her sale of 100 shares of stock.

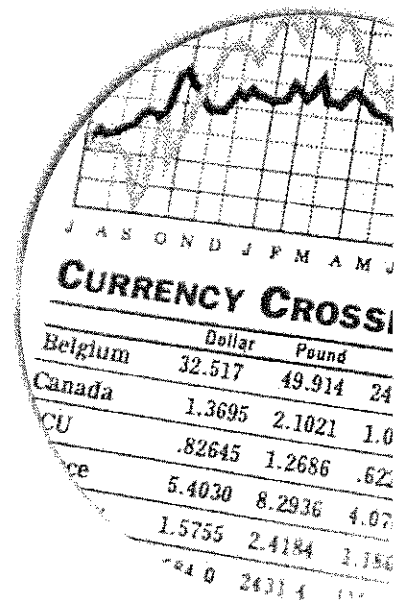
Solution The gross amount of the sale was $100 \times \$16.45 = \$1,645$.
The commission for the sale is:

$$.006 \times \$1,645 + \$17.00 = \$26.87$$

Maria will receive $\$1,645 - \$26.87 = \$1,618.13$ for selling her stocks.

Today it is possible to pay lower commission fees by buying and selling stocks on the Internet. The commissions for Internet transactions are almost always lower than brokers' fees.

The business pages of many newspapers show the daily activity of the stocks that are traded on major **exchanges**. The largest and most famous of these is the NYSE, the New York Stock Exchange. Other exchanges include the NASDAQ and the American Stock Exchange. There are also stock exchanges in many other cities around the world such as London, Tokyo, and Toronto.



Below is a typical line from a **stock listing** in a newspaper. The listing is for a company called Marlex that trades under the symbol MLX. (The company names in this lesson have been invented, but the numbers in the examples and exercises are from real companies.) Following the listing is an explanation of each number. Take the time to learn how these listings work. Then look in the business pages of a newspaper and read the stock listings of some companies that you are familiar with.

52-Week		Stock	Div.	Yld %	P/E	Sales 100s	High	Low	Last	Chg.
High	Low									
27.11	15.54	MLX	.30	1.2	26	5254	25.85	24.90	25.84	+0.26

- **27.11** is the **highest value** of the stock in the past year (52 weeks). In other words, one share of Marlex stock sold for \$27.11.
- **15.54** is the **lowest price** of the stock in the past year.
- **MLX** is the **trading symbol**, a kind of abbreviation, of the stock's name, Marlex.
- **.30** is the **payment** in dollars that the company expects to pay for each share. This payment of \$.30 is called a **dividend**. If there is a blank in the space under "Div.," the company does not pay a dividend.

- **1.2** is the **yield**. This is the annual dividend divided by the closing price (the next to the last number in the listing). The number is expressed as a percent. For Marlex, the yield is \$0.30 divided by a price of \$25.84 a share.

$$\$0.30 \div \$25.84 = 0.0116 \text{ or } 1.2\%$$

- **26** is the **price-to-earnings** ratio. This is the price of one share divided by the dividend paid on each share. The number is not measured in dollars. The P/E ratio is based on the dividend paid over the past four quarters and cannot be calculated from the numbers in the listing.
- **5254** is the **total number of shares**, in hundreds, that were traded. For the day shown in the listing,
 $100 \times 5254 = 525,400$ shares of Marlex stock were traded.

The last four numbers are measured in dollars:

- **25.85** is the **highest price of a share** of Marlex stock for the day.
- **24.90** is the **lowest price of a share** of Marlex for the day.
- **25.84** is the **last trading price**, called the **closing price**, for the day.
- **+0.26** is the **difference** between the last price of the stock on the previous day and the last price on the current trading day. Marlex was up \$0.26 from the previous day's closing price.

A **bond** is a way for companies and government organizations to raise money. A bond is a loan from an investor to the company or government agency. The Treasury Department of the U.S. government sells **treasury bonds**. State and local governments sell **municipal bonds**. Companies sell **corporate bonds**.

A bond investor receives interest from the issuer of the bond at a **coupon rate**. The coupon rate is the percent the issuer of the bond is required to pay the holder.

Example 3 A \$500 bond pays \$25 a year in interest. What is the coupon rate of the bond?

Solution Divide the interest by the value of the bond.

$$\$25 \div \$500 = 0.05$$

Change 0.05 to a percent.

$$.05 = 5\%$$

The coupon rate is 5%.

A bond is a loan to a company or a government agency for a fixed amount of time. When a bond **matures**, in 1, 5, 10, or even 30 years, the investor gets back the original loan amount.

Stocks and bonds are sometimes lumped together under the term **securities**. The word *security* simply describes any stock or bond that can be traded.

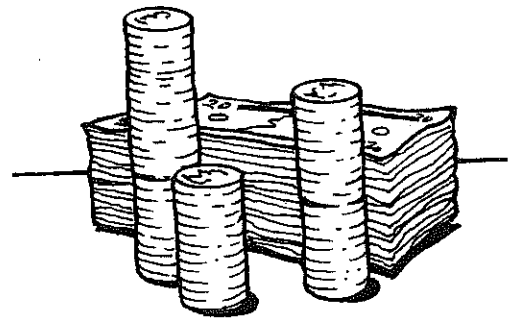
A **certificate of deposit (CD)** is an investment with a bank. CDs are insured deposits that pay interest and require that the money remains invested for a fixed period of time.

A **mutual fund** is an investment company that uses the cash of investors to buy stocks and bonds in a particular way. The company's **prospectus** is a legal document that explains in great detail how an investor's money will be spent.

There are mutual funds that invest in specialized areas such as transportation or energy or natural resources. Other mutual funds buy only bonds.

Index funds buy only the stocks that make up certain well-known standards such as the Dow Jones Industrial Average or the Standard & Poor's 500. When a standard like the S&P 500 is up for the year, the stocks held in an index fund usually gain by a similar percent.

The daily listings in business pages of newspapers include the **NAV** or **net asset value** of mutual funds. The NAV is similar to the share price of a stock. At the end of a business day, the fund company adds the value of all the investments in the fund and subtracts any fees or commissions. The resulting number divided by the total number of shares in the fund is the NAV.



Many Americans do most of their investing in their retirement accounts such as **IRAs**—Individual Retirement Accounts—**401(k)** plans, or **403(b)** plans. The complicated name 401(k) or 403(b) simply refers to a section of the Internal Revenue Code that describes the requirements for each saving plan. These retirement accounts allow investors to **defer** taxes on the amount they contribute to the accounts. This means that investors pay no income tax on the money they put in the accounts until they withdraw the money when they retire.

To solve the problems in the next exercise, review:

- decimals, pages 229–231
- finding a percent of a number, page 237
- finding what percent one number is of another, page 238

Exercise 8

Part A

Solve each problem. Use a calculator when needed.

- 1 Find the gross value of 40 shares of stock that trade at 38.4.
- 2 What is the coupon rate of a \$2,000 bond that pays \$80 interest in a year?
- 3 Marcos has 723.647 shares of a mutual fund in his retirement account. If the NAV of the fund is 15.90, what is the total value, to the nearest dollar, of Marcos' mutual fund?

Part B

Use the following table of commission rates to answer problems 4 to 7.

Internet Trades

Stocks	\$19.95 per transaction
Mutual Funds	\$19.95 per transaction

Broker-Assisted Stock Trades

under \$500	\$20 + .006 × gross amount
\$501 – \$1,000	\$25 + .0025 × gross amount
\$1,001 – \$10,000	\$35 + .002 × gross amount
over \$10,000	\$50 + .001 × gross amount

- 4 What is the total cost of a broker-assisted purchase of 80 shares of SureBet stock that is selling at 46.3?
- 5 Nurdan put \$2,500 into a mutual fund on the Internet. What is the fee for her transaction?
- 6 Jeff used the Internet to sell 20 shares of Texoil stock that was trading at 32.45. What net amount did Jeff receive for the transaction?
- 7 Sandra used a broker to buy 60 shares of Goodeal stock that sold for 22.7. She used a broker again to sell the stock at 26.3. What was her net profit on the stock?