Senior High School

Department of Education

National Capital Region

SCHOOLS DIVISION OFFICE

GENERAL MATHEMATICS

Quarter 2: Module 4

Basic Concepts of Stocks and Bonds

Writer: Evelyn Seroy

Cover Illustrator: Joel Estudillo

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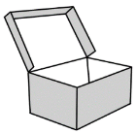


What I Need to

Hello senior high school learners! In this module, you will learn how to:

illustrate stocks and bonds **M11GM-lle-1**;
distinguish between stocks and bonds **M11GM-lle-2**;
describe the different markets for stocks and bonds **M11GM-lle-3;** and
analyze the different market indices for stocks and bonds **M11GM-IIe-4**.

You can say that you have understood the lesson in this module if you can already:

1. Illustrate stocks and bonds;
2. distinguish between stocks and bonds;
3. describe the different markets for stocks and bonds; and
4. analyze the different market indices for stocks and bonds.

What I Know

Choose the letter that corresponds to the correct answer. Write your answers on another sheet of paper.

1. A form of equity financing or raising money by allowing investors to be part owners of the company.
   A. Consumer B. Investor C. Bond D. Stock
2. A form of department financing or raising money by borrowing from investors.
   A. Consumer B. Investor C. Bond D. Stock
3. Investors are guaranteed interest payments and a return of their money at the maturity date.
   A. Consumer B. Investor C. Bond D. Stock
4. Investor can earn if the security prices increase, but they can lose money if the security prices decrease or worse, if the company goes bankrupt.
   A. Consumer B. Investor C. Bond D. Stock
5. A food corporation declared a dividend of P25, 000,000 for its common stock. Suppose there are P180,000 shares of common stock, how much is the dividend per share?
   A. P135.89 B. P138.89 C. P136.89 D. P137.89
6. The composite value of traded stocks group of secondary market is classified as _____.
   A. Stock Index C. Stock Market Index
   B. Primary Index D. Limited Liability Index

7. The price accepted in single bid auction system is the one which is the _____.
   A. Most lowest C. least lowest
   B. Most highest D. least highest
8. Considering the yields of bonds, the secured bonds as compared to unsecured bonds have _____.
   A. Higher yields C. Untime yields
   B. Lower yields D. Termed yields
9. The call premium is $640 and the face value of the bonds is $285. The call price of bonds is _____.
   A. 2.25 B. 355 C. 925 D. 0.0225
10. The number of individual buy orders and the total number of shares they wish to buy is called _____.
   A. Bid Price B. Bid Size C. Ask Price D. Ask Size

LESSON 1: Stocks and Bonds

What's In

Let us recall the previous lesson by considering the given problem below. Then, complete the statements..

A loan of ₱30,000.00 is to be repaid monthly for 5 years that will start at the end of 4 years. If interest rate is 12% converted monthly, how much is the monthly payment?

a. The type of annuity illustrated in the problem is a _____ annuity.
b. The total number of payments is _____.
c. The number of conversion periods in the period of deferral is _____.
d. The interest rate per period is _____.
e. The present value of the loan is _____.

What's New

Who among you wants to be a shareholder of one of the big companies in the Philippines? It is not impossible to be a shareholder of one of the big companies in the Philippines. If you buy the stocks of a certain company, you become one of the many owners. Being one of the owners, you are entitled to the earnings of the company. You may get earnings through dividends or you may opt to sell stocks at a higher price the moment the market value has increased.

Examples:

(a) Five years ago, Ms. Torres bought 500 shares of stocks in a certain corporation worth ₱48.00 each. Now, each share is worth ₱60.50.

(b) Mr. Tagle bought 1,000 shares of stocks in a corporation that had issued 100,000 shares. This means Mr. Tagle acquired 1% of the total shares.

(c) A certain corporation declared to give ₱100,000,000.00 dividend to the common stockholders. If there are 1,000,000 shares, then there will be P100 dividend per share.

Have you ever thought that you could fund big companies or even the government? Big companies or the government often need large amounts of money for their projects. To raise money, they issue bonds. Investors who purchase bonds are essentially "lenders" to the issuer. Investors are compensated for lending their money. Aside from being paid the loan at the end of a fixed amount of time, the investors also receive regular payments (called coupons), usually every six months.

Examples:

(a) Ms. Ante bought a 10% bond for ₱100,000.00. After 10 years, she receives P100,000 back. She also receives ₱100,000.00 (0.10) /2 = ₱5,000.00 every six months for 10 years.

(b) Mr. Dela Cruz is offered an 8% bond for ₱50,000.00. The bond has a face value of P50,000.00 with a maturity date exactly 5 years from now. He receives ₱50,000.00(0.8) /2 = ₱2,000.00 every six months for 5 years.

What is It

Illustrating Stocks and Bonds

Stocks

Some corporations may raise money for their expansion by issuing stocks. Stocks are shares in the ownership of the company. Owners of stocks may be considered as part owners of the company. There are two types of stocks: (1) common stock and (2) preferred stock. Both will receive dividends or share of earnings of the company. Dividends are paid first to preferred shareholders.

Stocks can be bought or sold at its current price called market value. When a person buys some shares, the person receives a certificate with the corporation AZs name, owner AZs name, number of shares and par value per share.

Bonds

Bonds are interest bearing security which promises to pay amount of money on a certain maturity date as stated in the bond certificate. Unlike the stockholders, bondholders are lenders to the institution which may be a government or private company. Some bond issues are the national government, government agencies, government owned and controlled corporations, non-bank corporations, banks and multilateral agencies.

Bondholders do not vote in the institutional AZs annual meeting but the first to claim in the institutional AZs earnings. On the maturity date the bondholders will receive the face amount of the bond. Aside from the face amount due on the maturity date, the bondholders may receive coupons (payments/ interests), usually done semi-annually, depending on the coupon rate stated in the certificate.

Distinguishing between Stocks and Bonds

Stocks	**Bonds**
-A form of equity financing or raising money by allowing investors to be part owners of the company. -Stock prices vary every day. These prices are reported in various media (newspaper, TV, Internet, etc). -Investing in stocks involves some uncertainty. Investors can earn if the stock prices increase, but they can lose money if the stock prices decrease or worse, if the company goes bankrupt. -It has higher risk but with possibility of higher returns. -It can be appropriate if the investment is for the long term (10 years or more). This can allow investors to wait for stock prices to increase if ever they go low.	-It is a form of debt financing or raising money by borrowing from investors. -Investors are guaranteed interest payments and a return of their money at the maturity date. -Uncertainty comes from the ability of the bond issuer to pay the bondholders. Bonds issued by the government pose less risk than those by companies because the government has guaranteed funding (taxes) from which it can pay its loans. -It has lower risk but lower yield. -It can be appropriate for retirees (because of the guaranteed fixed income) or for those who need the money soon (because they cannot afford to take a chance at the stock market).

Let us define terms in relation to stocks.

- **Stocks –** share in the ownership of a company
- **Dividend –** share in the company "s profit
- **Dividend Per Share –** ratio of the dividends to the number of shares

- **Stock Market –** A place where stocks can be bought or sold. The stock market in the Philippines is governed by the Philippine Stock Exchange (PSE).
- **Market Value –** the current price of a stock at which it can be sold
- **Stock Yield Ratio –** It is the ratio of the annual dividend per share and the market value per share. It is also called current stock yield.
- **Par Value –** It is the per share amount as stated on the company certificate. Unlike market value, it is determined by the company and remains stable over time.

Let us illustrate these terms through examples.

EXAMPLE 1: A certain financial institution declared a ₱30,000,000.00 dividend for the common stocks. If there are a total of ₱700,000.00 shares of common stock, how much is the dividend per share?

Given: Total Dividend = ₱30,000,000.00

Total Shares =₱ 700,000.00

Find: Dividend per Share

Solution:

Dividend per Share = $\frac{Total\ Dividend}{Total\ Shares}$

$= \frac{30{,}000{,}000}{700{,}000}$

$= 42.86$

Therefore, the dividend per share is ₱42.86.

EXAMPLE 2: A certain corporation declared a 3% dividend on a stock with a par value of ₱500.00. Mrs. Lingson owns 200 shares of stock with a par value of ₱500.00. How much is the dividend she received?

Solution.

Given: Dividend Percentage = 3%

Par Value = ₱500.00

Number of Shares = 200

Find: Dividend

The dividend per share is P500 x 0.03 = P15. Since there are 200 shares, the total dividend is P15 / share x 200 shares = ₱3,000.00.

To summarize:

Dividend = Dividend Percentage x Par Value x Number of Shares

$= 0.03(500)(200)$

$= ₱3{,}000.00$

Thus, the dividend is ₱3,000.00.

EXAMPLE 3: Corporation A, with a current market value of ₱52.00, gave a dividend of ₱8.00 per share for its common stock. Corporation B, with a current market value of ₱95.00, gave a dividend of ₱12.00 per share. Use the **stock yield ratio** to measure how much dividends shareholders are getting in relation to the amount invested.

Solution. **Corporation A:**

Given: Dividend per Share = ₱8.00

Market Value = ₱52.00

Find: Stock Yield Ratio

$$\text{Stock Yield Ratio} = \frac{Dividend\ per\ Share}{Market\ Value}$$

$$= \frac{8}{52}$$

$$= 0.1538 = 15.38\%$$

Corporation B:

Given: Dividend per Share = ₱12.00

Market Value = ₱95.00

Find: Stock Yield Ratio

$$\text{Stock Yield Ratio} = \frac{Dividend\ per\ Share}{Market\ Value}$$

$$= \frac{12}{95}$$

$$= 0.1263 = 12.63\%$$

Corporation A has a higher stock yield ratio than Corporation B. Thus, each peso would earn you more if you invest in Corporation A than in Corporation B. If all other things are equal, then it is wiser to invest in Corporation A.

As Example 3 shows, the stock yield ratio can be used to compare two or more investments.

Let us define terms in relation to bonds.

- **Bond –** interest-bearing security which promises to pay
  (1) a stated amount of money on the maturity date, and
  (2) regular interest payments called **coupons**

- **Coupon –** periodic interest payment that the bondholder receives during the time between purchase date and maturity date; usually received semi-annually
- **Coupon Rate –** the rate per coupon payment period; denoted by **r**
- **Price of a Bond –** the price of the bond at purchase time; denoted by **P**
- **Par Value or Face Value –** the amount payable on the maturity date; denoted by **F**

If P = F, the bond is **purchased at par.**
If P < F, the bond is **purchased at a discount.**
If P > F, the bond is **purchased at premium.**

- **Term (or Tenor) of a Bond –** fixed period of time (in years) at which the bond is redeemable as stated in the bond certificate; number of years from time of purchase to maturity date
- **Fair Price of a Bond –** present value of all cash inflows to the bondholder

Let us illustrate these terms through examples.

EXAMPLE 4: Determine the amount of the semi -annual coupon for a bond with a face value of ₱300,000.00 that pays 10%, payable semi-annually for its coupons.

Given: Face Value F = ₱300,000.00

Coupon Rate r = 10%

Find: Amount of the Semi-annual Coupon

Annual coupon amount: $300{,}000(0.10) = 30{,}000$

Semi-annual coupon amount: $30{,}000(\frac{1}{2}) = 15{,}000$

Thus, the amount of the semi-annual coupon is ₱15,000.00.

The **coupon rate** is used only for computing the coupon amount, usually paid semi-annually. It is not the rate at which money grows. Instead current market conditions are reflected by the **market rate** and is used to compute the present value of future payments.

EXAMPLE 5: Suppose that a bond has a face value of ₱100,000.00 and its maturity date is 10 years from now. The coupon rate is 5% payable semi-annually. Find the fair price of this bond assuming that the annual market rate is 4%.

Given: Face Value F = ₱100,000.00

Coupon Rate r = 5%

Time to Maturity = 10 years

Number of periods = 2(10) = 20

Market Rate = 4%

Find: Fair Price of the Bond

Amount of semi-annual coupon: 100,000 $(\frac{0.05}{2})$ = ₱2,500.00

The bondholder receives 20 payments of ₱2,500.00 each and P100,000 at t = 10.

Present value of ₱100,000.00:

$$P = \frac{F}{(1+J)^n} = \frac{100{,}000}{(1+0.04)^{10}} = ₱67{,}556.42$$

Present value of ₱100,000.00:

Convert 4% to equivalent semi-annual rate:

$$(1 + 0.04)^1 = (1 + \frac{i^2}{2})^2$$

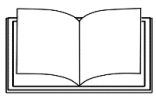
$$\frac{i^2}{2} = 0.019804$$

Thus,

$$P = R\,\frac{1-(1+J)^{-n}}{j} = 2{,}500\,\frac{1-(1+0.019804)^{-20}}{0.019804} = ₱40{,}956.01, \text{ and}$$

Price = ₱67,556.42 + ₱40,956.01 = ₱108,512.43.

Thus, a price of ₱108, 512.14 is equivalent to all future payments assuming an annual market rate of 4%.



What's More

A. Identify whether the given statement describes **stocks** or **bonds.** Write your answers on another sheet of paper.

1. Units of equity or ownership stake in a company
2. Lower risk but lower yield
3. Interest-bearing security which promises to pay amount of money on a certain maturity date
4. A form of raising money by allowing investors to be part owners of the company
5. Higher risk but with possibility of higher returns

B. Solve the following problems:

1. Company X declared a dividend amounting to ₱10,500,000.00 for the common stocks. There is a total of ₱350,000.00 shares of common stock. (a) How much is the dividend per share? (b) If you own 250 shares of common stocks, how much is your total dividend? (c) If the market value of the stock is ₱40.00, find the stock yield ratio.

2. Mr. Fernandez bought ₱2,500.00 shares of stocks from Company Y at ₱100.00 par value. How much is his total dividend if the company declared a 4% dividend on a stock with a par value of ₱100.00?

3. A ₱50,000.00-bond which matures after 5 years pays 8% semi-annually for its coupons. Find the amount of each semi-annual coupon and the total number of coupons paid.

4. A ₱400,000.00-bond pays equal payments of ₱5,000.00 semi-annually for 25 years. If the annual market rate is 3%, find the fair price of the bond.

5. Sally borrowed ₱2,500,000.00 from a friend to open her own restaurant. If the rate of interest is 8% per annum and she wants to repay the loan after 5 years, how much will be her total payment?

What I Have Learned

Complete the sentences below. Write your answer on the space provided.

1. A _____ share in the ownership of a company
2. A ratio of the dividends to the number of shares _____
3. _____ the current price of a stock at which it can be sold
4. _____ ratio of the annual dividend per share and the market value per share
5. _____ the per share amount as stated on the company certificate
6. _____ interest-bearing security which promises to pay a stated amount of money on the maturity date, and regular interest payments called 7. _____. 8. _____ the rate per coupon payment period; 9. _____ fixed period of time (in years) at which the bond is redeemable as stated in the bond certificate; number of years from time of purchase to maturity date 10. _____ present value of all cash inflows to the bondholder.

What I Can Do

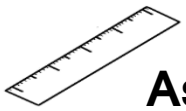
Problem Solving. Write your solutions on another sheet of paper.

1. A stock company has a total of ₱1,200.00 shares of stocks. Of these shares, 500 are owned by the Madrigal group of investors and 10 are owned by Atty. Martinez. The company customized classes of stocks in such a way that the voting power will remain with the original corporate investors like the Madrigals who availed of the company's initial public offering. These select groups are given ten votes per share while the rest of the investors are given one vote per share.
   a. What percent of the total shares of stocks is controlled by the Madrigal group of investors?
   b. What percent of the total shares of stocks is controlled by Atty. Martinez?
   c. If an election is to be held in the company to elect a new set of members of the board, how many votes can be cast by the Madrigal group of investors? By Atty. Martinez?

2. Mr. Santiago purchased one hundred 6% -bonds from ALB Finance Corporation. Each bond has a face value of ₱1,000.00 and were purchased at ₱960.00. The bonds mature in 5 years.
   a. How much will Mr. Santiago receive as his dividend for all the bonds if dividend is paid semi-annually?
   b. Compute for its maturity value.
   c. After the maturity date, how much is the total earnings of Mr. Santiago?

Rubrics

Score	Description
15 points	90-100% correct answers with concrete explanation and the output is neat and organized.
10 points	60-89% correct answers with an explanation and the output is neat and organized.
5 points	Incomplete answer with 50% incorrect answers and the output is not neat nor organized.
No point earned	No output at all



Assessment

The table below shows the data on 5 stockholders given the par value, the dividend percentage and the number of shares of stock they have with a certain corporation. Find the dividend of the 5 stockholders.

Stockholder	Par Value (in Pesos)	Dividend (%)	Number of Shares
A	50	3%	100
B	48	2.75%	150
C	35	2.5%	300
D	42	3.12%	400
E	58	3.5%	500

Additional Activities

Answer the following problems completely.

1. A land developer declared a dividend of ₱10,000,000.00 for its common stock. Suppose there are ₱600,000.00 shares of common stock, how much is the dividend per share?
2. A certain company gave out ₱25.00 dividend per share for its common stock. The market value of the stock is ₱92.00. Determine the stock yield ratio.
3. Find the amount of the semi-annual coupon for a ₱250,000.00 bond which pays 7% convertible semi-annually for its coupons.

Lesson 2: Analyzing the Different Market Indices for Stocks and Bonds

What's In

Solve the following problems:

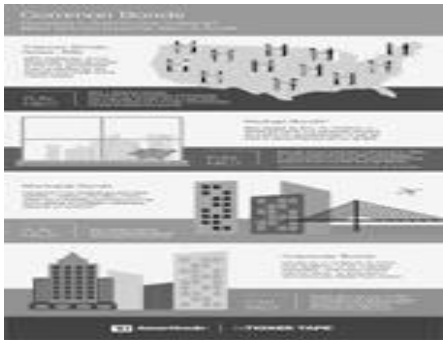
1. A bank declared a dividend of ₱27.00 per share for the common stock. If the common stock closes at 93, how large is the stock yield ratio on this investment?

2. Find the amount of the semi-annual coupon for a ₱200,000.00 bond which pays 5% convertible semi-annually for its coupons.

(Note: Formula use, SYR = dividend/market value; Fr = FV(NY/t))

What's New

Students will gather newspaper clippings that show information about stocks and bonds. If newspaper clippings are not available, you may browse on the internet for other sources. You may use the sample clippings below as reference to answer the questions that follow.



Questions:

1. How do stocks work?
2. What is a bond?

(Note: Possible answers)

3. When you own a company's stock, you own part of that company. Stocks are also called equity for that reason — you own a tiny piece of the company.
4. Bonds are like IOUs that you get from banks. You are lending them money in exchange for a fixed amount of interest. Bonds are extremely stable, especially government bonds. The only way you'd lose money on a government bond is if the government defaulted on its loans — and it doesn't do that. It just prints more money.

What is It

STOCK MARKET

A **STOCK MARKET INDEX** is a measure of a portion of the stock market. One example is the PSE Composite Index or PSEi. It is composed of 30 companies carefully selected to represent the general movement of market prices. The up and down movement in percent change over time can indicate how the index is performing.

Other indices are sector indices, each representing a particular sector (e.g., financial institutions, industrial corporations, holding firms, service corporations, mining/oil, property).

The stock index can be a standard by which investors can compare the performance of their stocks. A financial institution may want to compare its performance with those of others. This can be done by comparing with the financial index.

TERMS IN STOCK MARKET TABLES

Stock indices are reported in the business section of magazines or newspapers, as well as online. The following table shows how a list of index values is typically presented (values are hypothetical).

Index	Val	Chg	%Chg
PSEi	7,523.93	-14.20	-0.19
Financials	4,037.83	6.58	0.16
Holding Firms	6,513.37	2.42	0.037
Industrial	11,741.55	125.08	1.07
Property	2,973.52	-9.85	-0.33
Services	1,622.64	-16.27	-1.00
Mining and Oil	11,914.73	28.91	0.24

In the table above, the terms mean the following:

- **Val –** value of the index
- **Chg –** change of the index value from the previous trading day (i.e., value today minus value yesterday)
- **%Chg –** ratio of Chg to Val (i.e.< Chg dividend by Val)

STOCKS TABLES

Newspapers or magazines may also report on stock prices of individual companies. The following table shows how information about stocks can be presented (values are hypothetical).

52-WK HI	52-WK LO	STOCK	HI	LO	DIV	VOL(100s)	CLOSE	NETCHG
94	44	AAA	60	35.5	.70	2050	57.29	0.10
88	25	BBB	45	32.7	.28	10700	45.70	-0.2

In the table above, the terms mean the following:

- **52-WK HI/LO –** highest/lowest selling price of the stock in the past 52 weeks
- **HI/LO –** highest/lowest selling price of the stock in the last trading day
- **STOCK –** three-letter symbol the company is using for trading
- **DIV –** dividend per share last year

- **VOL (100s) –** number of shares (in hundreds) traded in the last trading day (In this case, stock AAA sold 2,050 shares of 100 which is equal to 20,500 shares.)
- **CLOSE –** closing price on the last trading day
- **NETCHG –** net change between the two last trading days (In the case of AAA, the net change is 0.10. The closing price the day before the last trading day is P57.29 – P0.10 = P57.19.)

Such a table may be seen in newspapers or websites which summarize the price movement on selected stocks for the previous trading day.

Buying or Selling Stocks

To buy or sell stocks, one may go to the PSE personally. However, most transactions nowadays are done by making a phone call to a registered broker or by logging on to a reputable online trading platform. Those with accounts in online trading platforms may often encounter a table like the following:

Bid			Ask/Offer		
Size		Price	Price	Size	
122	354,100	21.6000	21.8000	20,000	1
9	81,700	21.5500	21.9000	183,500	4
42	456,500	21.5000	22.1500	5,100	1
2	12,500	21.4500	22.2500	11,800	4
9	14,200	21.4000	22.3000	23,400	6

In the table above, the terms mean the following:

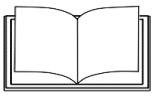
- **Bid Size –** the number of individual buy orders and the total number of shares they wish to buy
- **Bid Price** - the price these buyers are willing to pay for the stock
- **Ask Price –** the price the sellers of the stock are willing to sell the stock.
- **Ask Size –** how many individual sell orders have been placed in the online platform and the total number of shares these sellers wish to sell.

For example, the first row under Bid means that there is a total of 122 traders who wish to buy a total of 354,100 shares at ₱21.60 per share. On the other hand, the first row under Ask means that just 1 trader is willing to sell his 20,000 shares at a price of ₱21.80 per share.

Bond Market Indices

The main platform for bonds or fixed income securities in the Philippines is the Philippine Dealing and Exchange Corporation (PDEx). Unlike stock indices which are associated with virtually every stock market in the world, bond market indices are far less common. In fact, other than certain regional bond indices which have sub-indices covering the Philippines, our bond market does not typically compute a bond market index. Instead, the

market rates produced from the bond market are interest rates which may be used as benchmarks for other financial instruments.



What's More

Given the following listing on stocks, answer the questions that follow:

52 weeks								
HI	LO	STOCK	DIV	YLD%	PE.	VOL(100s)	CLOSE	NETCHG
50	35.8	AAB	.40	1.2	10	2000	57.29	1.3
43.5	37	BBA	.35	1.9	5.7	1200	40.70	-0.5

1. What was the dividend per share last year for stock AAB?
2. What was the annual percentage yield last year for stock BBA?
3. What was the closing price in the last trading day for stock BBA?
4. For stock AAB, what was the closing price the day before the last trading day?

What I Have Learned

Write the term/expression that will complete the statements.

1. _____highest/lowest selling price of the stock in the past 52 weeks.
2. _____highest/ lowest selling price of the stock in the last trading day.
3. _____ three-letter symbol the company is using for trading.
4. _____ number of shares (in hundreds) traded in the last trading day.
5. _____ net change between the two last trading days.

What I Can Do

Consider the following listing on stocks and answer the questions that will follow:

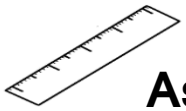
52-weeks							
HI	LO	STOCK	DIV	YLD%	VOL(100s)	CLOSE	NETCHG
120	105	GGG	3.5	2.8	4050	118.50	-0.50
16	12	HHH	0.9	1.1	1070	15.80	0.10

For Stocks GGG and HHH:

1. What was the lowest price of the stock for the last 52-weeks?
2. What was the dividend per share last year?
3. What was the annual percentage yield last year?
4. What was the closing price in the last trading day?
5. What was the closing price the day before the last trading day?

Rubrics

Score	Description
15 points	90-100% correct answers with concrete explanation.
10 points	60-89% correct answers with an explanation; output is neat and organized.
5 points	Incomplete answer with 50% incorrect answers; output is not organized nor neat.
No point earned	No output at all



Assessment

Answer the problem:

Mr. Dominguez purchased one hundred 6%-bonds from ALB Finance Corporation. Each bond has a face value of ₱1,000.00 and were purchased at ₱960.00. The bonds mature in 5 years.

(a) How much will Mr. Dominguez receive as his dividend for all the bonds if dividends are paid semi-annually?
(b) Compute for its maturity value.
(c) After the maturity date, how much is the total earnings of Mr. Dominguez?

Additional Activities

Consider the following listing on stocks and answer the questions that follow:

52-weeks							
HI	LO	STOCK	DIV	YLD%	VOL(100s)	CLOSE	NETCHG
75	65	JJJ	2.5	2.8	1500	70	2
34	23	KKK	1.7	1.75	1200	28	-3

For Stock JJJ:

1.What was the highest price of the stock for the last 52-weeks?

A. What was the dividend per share last year?
B. What was the annual percentage yield last year?
C. What was the closing price in the last trading day?
D. What was the closing price the day before the last trading day?

For Stock KKK:

E. What was the lowest price of the stock for the last 52-weeks?
F. How many shares were traded in the last trading day?
G. What was the dividend per share?
H. What was the closing price in the last trading day?
I. What was the closing price the day before the last trading day?

SUMMATIVE TEST

Choose the letter that corresponds to the exact answer.

1. A certain financial institution declared P57 dividend per share for its common stock. The market value of the stock is P198. Determine the stock yield ratio.

A. 28.79% B. 27.79% C. 26.79% D. 25.79%

2. Determine the amount of a semi-annual coupon paid for a 3% bond with a face value of P80,000 which matures after 15 years.

A. P1,100 B. P1,150 C. P1,200 D. P 1,250

3. A certain land developer declared a dividend of P28 per share for the common stock. If the common stock closes at P99, how large is the stock yield ratio on this investment?

A. 28.79% B. 28.69% C. 28.28% D. 28.38%

4. A P450,000 bond is redeemable at P550,000 after 5 years. Coupons are given at 5% convertible semi-annually. Find the amount of the semi-annual coupon.

A.P11,150 B. P11, 175 C. P11,200 D. P11,250

5. Find the amount of the semi-annual coupon for a P250,000 bond which pays 7% convertible semi-annually for its coupon.

A. P8.750 B. P8,800 C. P8,850 D. P8,900

6. It shows many individual sell orders have been placed in the online platform and the total number of shares where sellers wish to sell.

A. Bid Price B. Bid Size C. Ask Price D. Ask Size

7. The price these buyers are willing to pay for the stock.

A. Bid Price B. Bid Size C. Ask Price D. Ask Size

8. The price the sellers of the stock are willing to sell the stock.

A. Bid Price B. Bid Size C. Ask Price D. Ask Size

9. The main platform for bonds or fixed income securities in the Philippines is the Philippine Dealing and Exchange Corporation (or PDEx).

A. Stock Index C. Stock Market Index

C. Primary Index D. Bond Market Index

10. Highest/lowest selling price of the stock in the last trading day.

A. Close B. 52-WK HI/LO C. Stock D. HI/LO

References

L. Dimasuay, J. Alcala, and J. Palacio. General Mathematics.2016: C & E Publishing Inc.,

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https://www.pesobility.com/stock.Snapshot of the page appeared on Oct.14, 2020.01:49:04GMT

Answer Key

Lesson1
What I Know
1. D 2.C 3.C 4.D 5.B 6.C 7.A 8.A 9.C 10.B
What's In
a. Deferred b. 60 c. 47 d. 0.01 e. P 30,000
What's More (L2)
1. Stocks 2. Bonds 3. Bonds 4. Stocks 5. Stocks
1. (a) P30 (b) P7500 (c) ¾
2. Dividend per share = P4; Total dividend = P10,000
3. Amount of each semi-annual coupon = P2,000; total number of Coupons = 10
4. Present value of P400,000; Price = P450,680.77
Present value of 50 payments of P5,000 each P = P174,998.44
5. P3,500,000
What I Have Learned
1. Stocks 2. Dividend per Share 3. Market Value 4. Stock Yield Ratio 5. Par Value
6. Bond 7. Coupons 8. Coupon rate 9. Terms of a Bond 10. Fair Price of a Bond
What I can Do
1.(a) 41.67%
(b) 0.83%
(©) The Madrigal's one of the original stockholders can cast 5,000 votes while Atty. Martinez can cast 100 votes.
2.(a) P3,000 (b) P100,000 (c) P7,000
Assessment
A. 150 B. 198 C. 262.5 D. 524.15 E. 1.015
ADDITIONAL ACTIVITIES
1. P16.67 2. 27.17% 3. P8,750
Lesson 2
What I Have Learned
1.52-wk HI/LO 2. HI/LO 3. Stock 4. VOL (100s) 5. NETCHG
What's More
1.0.40 2. 1.9% 3. 41.20 4. 55.99

What I Can Do
For stock GGG
1.Lowest price = P105,00
2.Dividend per Share = P3.50
3.YLD% = 2.8%
4.Closing Price = P18.50
5.Closing Price (the day before the last trading day) = P118.50 + 0.50 = P119
For stock HHH
1.P12.00
2.P0.90
3.1.1%
4.P15.80
5.P15.80-P0.10 = P15.70
Assessment
(a) P3,000 (b) P100,000 (c) P7,000
Additional Activities
For stock JJJ
1.75 2. 2.5 3. 2.8% 4. 70 5. P68
For stock KKK
1.23 2. 200 3. 1.7 4. 28 5. P31
SUMMATIVE TEST
1.A 2. C 3. C 4.D 5. A 6.D 7.A 8.C 9.D 10.D

Development Team of the Module

Writer: Evelyn E. Seroy, Teacher III (MHS)

Editors: Freddie D. Viernes, Public School District Supervisor

Olive R. Lomibao, Head Teacher III (SEHS)

Language Editor: Cyril P. Santos, Master Teacher I (SEHS)

Internal Reviewer: Dominador J. Villafria, EPS-Mathematics

Cover Illustrator: Joel J. Estudillo, Teacher I (SNNHS)

Management Team:

Sheryll T. Gayola

Assistant Schools Division Superintendent

OIC, Office of the Schools Division Superintendent

Elisa O. Cerveza

Chief, CID

OIC, Office of the Assistant Schools Division Superintendent

Dominador J. Villafria

Education Program Supervisor-Mathematics

Ivy Coney A. Gamatero

Education Program Supervisor– LRMS

For inquiries or feedback, please write or call:

Schools Division Office- Marikina City

Email Address: sdo.marikina@deped.gov.ph

191 Shoe Ave., Sta. Elena, Marikina City, 1800, Philippines

Telefax: (02) 682-2472 / 682-3989

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