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## Consumer Math

## Section 12.1 - 2: Certificates of Deposit and Effective Annual Yield

Learning Targets: We are learning about investing in certificates of deposit at a banking institution as part of a diversified investment plan, how to calculate the future value of a CD and the annual yield of a CD.
Success Criteria: I can:

- Evaluate the future value of a $C D$
- Evaluate the effective annual yield of a CD
earns a higher rate of interest than a regular savings account.
- Buy them for specific amounts such as $\$ 500$ or $\$ 1000$
- Leave the money in the CD for a specified time ranging from 3 months to 30 years.
- Penalized for early withdrawal
- Earn interest compounded daily, monthly, or quarterly

> Amount at Maturity =
$\qquad$ X $\qquad$

Interest earned = $\qquad$ - $\qquad$

Ex: Charles can invest $\$ 5000$ in a 1-year CD at 4 percent compounded monthly or a 1-year CD compounded daily. What is the difference earned in each investment?

You Try: Paul invests $\$ 4000$ in a 1 -year certificate of deposit that earns interest at an annual rate of 5 percent compounded monthly. How much interest will he earn at the end of 1 year?

- Report the annual yield and the annual interest rates on CDs
determined by the frequency of compounding (uses compound interest) and is usually stated as a percent earned by the investor who holds it over a period of time.

Effective Annual Yield = $\qquad$

Ex: Gerry can invest $\$ 10000$ at either 4.75 percent compounded daily for 4 years or 5 percent compounded quarterly for 1 year. Based on an effective annual yield, which is the better investment?

You Try: Randy invested $\$ 5000$ in a certificate of deposit for 3 years. The certificate earns interest at an annual rate of 6.25 compounded quarterly. What is the effective annual yield to the nearest thousandth of a percent?

## Section 12.3-4: Stocks and Stock Dividends

Learning Targets: We are learning about what stocks are, how they are purchased, the costs involved with buying stocks and the monetary benefits of being a stockholder

Success Criteria: I can:

- Use the vocabulary related to stocks
- Calculate the cost of stocks alone and the total paid for stocks (including commission)
- Calculate the total dividend earned annually for being a stockholder
- Evaluate the annual yield for stocks


Ex: Melanie purchased 100 shares of stock at $\$ 106.30$ per share. Her internet online stockbroker charged $2 \%$ commission. What is the total amount that she paid for the stock?

You Try: Georgia purchased 275 shares of stock at $\$ 63.50$ per share. Her stockbroker charged commission of $\$ 0.10$ per share. What is the total amount that she paid for the stock?

* May receive an amount specified by the corporation for each share of stock that you own.
* the annual return for holding a stock expressed as a percent of the price
* The higher the yield the greater the return on your investment during the year

Total Annual Dividend $=$ $\qquad$ X $\qquad$

Annual Yield = $\qquad$

Ex: Pam bought 80 shares of Network Associates stock at $\$ 24$ per share. The company paid annual dividends of $\$ 0.38$ per share.
a. What is the total annual dividend?
b. What is the annual yield to the nearest hundredth of a percent?

You Try: Susana owns 100 shares of Wagon Inc. stock. The stock price ranged from a low of $\$ 37.26$ to a high of $\$ 52.86$ last year. The annual dividend is $\$ 1.10$ per share.
a. What are the annual yields based on the high and the low?
b. What is the total annual dividend?

## Section 12.5: Buying \& Selling Stocks

Learning Targets: We are learning that owning stocks can result in a profit or loss and that there is no guarantee of making money or insurance against losing money.

Success Criteria: I can:

- Calculate the amount paid for stocks (including commission)
- Calculate the amount received from the sale of stocks (accounting for commission)
- Determine whether a loss or profit has occurred and can calculate the amount of the profit or loss

When you invest in stocks (or any financial activity), it can either result in a profit or a loss.
$\qquad$ When the amount of revenue gained from financial activities exceeds the expenses \& costs.

When the amount of revenue gained from financial activities is less than the expenses and costs.
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Ex: Candace paid $\$ 50 /$ share for 90 shares of Buy More and paid a commission $\$ 19.95$ plus 5 cents per share. A few years later she sold the stock for $\$ 63.20 /$ share and paid a sales commission of $\$ 39.95$. What is the profit/ loss from the sale?

You Try: Bill paid a total of $\$ 4,138$ for 75 shares of Watson Parcels. He sold the stock for $\$ 51.50$ a share and paid a sales commission of $\$ 39.45$. What is the profit/ loss from the sale?

## Section 12.6: Bonds

Learning Targets: We are learning about what bonds are and how they differ from stocks. We are also learning how to calculate the cost of a bond, how much annual interest is earned and the annual yield of a bond.

Success Criteria: I can:

- State the differences between stocks and bonds
- Calculate the cost of a bond, annual interest and annual yield of a bond
corporations to repay a specific amount of money with interest at a certain time in return for lending them the money.
- You are not part owner of the corporation
- Lend money to a corporation or government and in return corporation or government pays you interest
- Maturity dates range anywhere from 10 to 30 years
- When bond is redeemed, receive amount printed on the bond
- Cost of a bond is a percent of the value
- Earn interest on the face value of the bond

Bond cost $=$ $\qquad$ X $\qquad$

Annual Interest = $\qquad$ X $\qquad$
Annual Yield = $\qquad$

Ex: George purchased a $\$ 2000$ bond at the quoted price of 89.5 . The bond paid interest at a rate of $6 \%$.
a. Find the annual interest.
b. Find the cost of the bond.
c. Find the annual yield.

You Try: Elle purchased a $\$ 7,500$ bond at a quoted price of 91.5 . The bond paid an interest rate of $5.25 \%$. a. Find the annual interest.
b. Find the cost of the bond.
c. Find the annual yield.

