Financial Lit Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 WS Assessment

 Target 14:

Employee benefits

**I can:**

* Understand and calculate the value of certain employee benefits.
* compute paycheck deductions for Social Security.
* Compute paycheck deductions for Medicare.

**Unit 6 Math Topics:**

* Cusps
* Piecewise functions
* Exponential functions
* Graphs
* Linear functions
* Literal expressions
* Measures of central tendency
* Percent discount
* Spreadsheets and formulas

**Employee benefits** are value-added options that an employer may choose to offer employees. Typically, benefits are in the forms of **insurance** (health, life, and disability), **paid vacation time, paid holiday time, retirement plans, stock ownership plans, childcare leave,** and more. **Family health care** covers all members of the immediate family for health care bills to the extent outlined in the health care coverage plan. **Individual health care** covers only the employee. A **pension** is compensation that an employee receives from an employer after retirement.

While the above benefits are not required, there are some benefits that are required like **unemployment insurance** (a government program that offers benefits to eligible employees who, through no fault

of their own, have become unemployed). Another benefit that is required by the government is **worker’s compensation**. The extent of compensation from this program is governed by state laws. But, the purpose of the program is to offer assistance to employees who are injured while working at their job.

Alan works for a printing company. It has been a little over four years since he was hired. He now makes $54,080 per year. When he was hired, he was told that he had five days of paid vacation time. For each year that he worked at the company, he would gain another two days of paid vacation time to a maximum of 20 days. How many paid vacation days does he now get at the end of four years of employment and how much will he make during the time he is on vacation?

Frieda’s employer offers her family health care. Frieda must contribute 12% of the cost, and her employer will cover the rest. Frieda gets paid on a biweekly basis, and she notices that $88.50 is taken out of each paycheck for her portion of the contribution to the family health care coverage. How much does Frieda’s employer contribute for her coverage yearly?

Marina works at Washington Performing Arts Center. Her employer offers her a pension. Marina’s employer uses a formula to calculate the pension. A retiring employee will receive 1.5% of their average salary for the last five years of employment for every year worked. Marina is planning on retiring at the end of this year after 25 years of employment. Marina would receive this amount each year until her death. Her salaries for the last five years are $88,900, $92,200, $96,000,

$98,000, and $102,000. Calculate Marina’s pension.

Ans: Marina will receive a pension of $35,782.50 per year until her death.

In Reese’s state, the weekly unemployment compensation is 60% of the 26-week average for the two highest-salaried quarters. A quarter is three consecutive months. For January, February and March he earned a total $9,120, In April, May, and June, he earned a total of $9,060. In July, August, and September $9,024. In October, November, and December, $9,800. Determine Reese’s unemployment compensation.

What if Reese’s moved to Oregon, how much is his unemployment compensation:



Now go to <https://secure.emp.state.or.us/ocs/estimator/index.cfm> redo this problem and show me for stamp

Natalia worked in an automobile plant. She lost her job when the plant relocated to another state. She applied for unemployment compensation. In her state, the amount is calculated by taking

55% of the average of the last 26 weekly salary amounts. The gross incomes from her last 26 paychecks are listed in the table. Determine Natalia’s unemployment compensation weekly amount

to the nearest cent.



Compare her unemployment compensation in her state to Oregon.

Show website check for stamp

**What are social security and medicare?**

An insurance program is available jointly through your employer and the United States government. This insurance, **Social Security**, covers 90% of all American jobs. President Franklin D. Roosevelt started Social Security in 1935. It was established in the **Federal Insurance Contributions Act (FICA)**. Social Security provides income for people after they retire. Social Security also pays benefits to disabled workers. If an eligible worker dies, benefits are paid to surviving family members.

When you work at a job covered by Social Security, you must pay **FICA taxes**. Both **Social Security tax** and **Medicare tax** fall under this category. These taxes help cover the cost of these federal insurance programs. Medicare is the nation’s largest health insurance program for people 65 years of age and older and some disabled people under 65. The costs of Social Security and Medicare are split evenly between you and your employer. The amount of Social Security tax you pay depends on the Social Security percentage and the **maximum taxable income** for that year. A percentage of each worker’s salary is taken out of each paycheck, up to a set maximum amount. Any annual income greater than that amount is not subject to Social Security tax. Medicare tax is paid on all of your income. The money that you and your employer contribute to Social Security and Medicare is used to pay the *current* benefits to someone else. When you become eligible for benefits, the people working at that time will be paying for your benefits.

The government keeps records of the amounts that you have paid to Social Security and Medicare under your own personal **Social Security number**. Your Social Security number is a unique nine-digit number that belongs only to you. It will be on all of your paycheck stubs, so be sure to check that it is correct every time you get paid. You will have the same Social Security number for your entire life. It is important to keep your Social Security number private to prevent identity theft.

Ramiro got his first job in 2006. In that year, Social Security tax was 6.2% of income up to $94,200. Medicare tax was 1.45%. If Ramiro earned $73,210 in 2006, how much did he pay for Social Security and Medicare taxes? Write and graph the Social Security tax for 2006 as a piecewise function.



In 1991, Social Security and

Medicare taxes were itemized separately on paycheck stubs and tax forms for the first time. The table on the left gives a historical look at Social Security and Medicare

taxes.

**a.** Find the maximum a person

could contribute to Social

Security and Medicare in 1993.

**b.** If *f* (*x*) represents the Social

Security tax, and *x* represents

income, express the 2002 Social

Security tax as a piecewise

function.

In 2007, Jessica earned *p* dollars, where *p* > 100,000. Express the amount her employer contributed to her Social Security tax in February algebraically.

Keesha earned *x* dollars per month in 2006, where *x* < $5,600.

**a.** Did she earn more or less than the maximum taxable income for 2006?

**b.** Express her Social Security tax for the year algebraically.

**c.** Express her Medicare tax for the year algebraically.

Find the Social Security and Medicare tax rates for the current year. Also find the maximum taxable income for the Social Security tax. Use the information to graph this year’s Social Security tax function. Stamp

Trinh may earn $64,807 this year, what is his total tax?

**Assessment Target 14**

**I can…** compute paycheck deduction and/or other employee benefits

When Lisa started at her current job, her employer gave her two days of paid vacation time with a promise of three additional paid vacation days for each year she remains with the company to a maximum of four work weeks of paid vacation time.

**a.** Let *x* represent the number of years she has worked for this employer and *y* represent the number of paid vacation days she has earned. Write an equation that models the relationship between these two variables.

**b.** It has been five years since Lisa began working for this employer. How many paid vacation days has she earned?

**c.** When will she reach the maximum number of paid vacation days allowed?

Damian Lillard signed a 5 year / $139,888,445 contract with the Portland Trail Blazers. If you divide the salary by the number of games, does Damian reach this year’s maximum taxable income in the first game of the year? (google: how many games a NBA player plays per year).

In a year when the maximum income for Social Security was $106,800, Bart worked at two jobs. In one job he earned $99,112. In his second job, he earned $56,222. Both of his employers took out

Social Security tax. As a result, Bart had paid excess Social Security tax, and the government must return some of it to him.

How much is his total Social Security and Medicare tax?

How much does the government owe him for excess Social Security paid?