

Name: _____
MATH 100
Fall 2022
HW 13: Due 10/31

*"A penny saved is worth two pennies
earned. . . after taxes."*

–Randy Thurman

Problem 1. (10pt) Consider the 2022–2023 federal income tax brackets shown below. In the chart on the left below, only the brackets and tax levels are found. In the chart on the right below, the tax rate, bracket, and amount of taxes owed are shown.

Tax Rate	Taxable Income	Tax Rate	Taxable Income	Tax Owed
10%	\$0 – \$10,275	10%	\$0 – \$10,275	10% of taxable income.
12%	\$10,276 – \$41,775	12%	\$10,276 – \$41,775	\$1,027.50 plus 12% of amount over \$10,275.
22%	\$41,776 – \$89,075	22%	\$41,776 – \$89,075	\$4,807.50 plus 22% of amount over \$41,775.
24%	\$89,076 – \$170,050	24%	\$89,076 – \$170,050	\$15,213.50 plus 24% of amount over \$89,075.
32%	\$170,051 – \$215,950	32%	\$170,051 – \$215,950	\$34,647.50 plus 32% of amount over \$170,050.
35%	\$215,951 – \$539,900	35%	\$215,951 – \$539,900	\$49,335.50 plus 35% of amount over \$215,950.
37%	\$539,901 or more	37%	\$539,901 or more	\$162,718 plus 37% of amount over \$539,900.

Explain how the amount of tax owed in the chart on the right is computed by showing how the \$1,027.50 and the \$4,807.50 are obtained.

Problem 2. (10pt) Suppose that you place \$8,520 into a bank account that earns 1.2% annual interest, compounded monthly. If you save this money in this bank account for 4 years, how much money do you have at the end of the 4 years? How much interest have you earned?