Name: _____
MATH 100
Fall 2022
Additional Problems:
Markup/down, Taxes, & CPI

Problem 1. Robin buys a cellphone for $899.99. The tax on the phone is 7%. Find the amount she is charged in tax and the total amount she pays for the phone.

Problem 2. Robert goes shopping and buys 10 lemons for $1.25 per lemon, strawberries for $6.99, two bags of sugar for $4.99, and a jug for $15.99. How much is the total cost of the goods? If he pays 5% in taxes, what is the total amount that he spends?

Problem 3. Alice goes to buy jeans. The jeans cost $49.99 but are on sale. The sale sign indicates that they are 30% off. If she pays 7.5% in sales tax, what is the total cost per jean? How much does she pay in total buying six of these jeans on sale?

Problem 4. Suppose that you are filing your taxes. You are a single filer taking the standard deduction of $2,700. You made $82,000 last year. Use the table below to find the amount you pay in federal taxes.

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

Problem 5. Suppose that you are filing your taxes. You are a single filer taking the standard deduction of $1,900. You made $66,000 last year. Use the table below to find the amount you pay in federal taxes.

Tax Rate	Taxable Income
10%	Up to $10,275
12%	$10,276–$41,775
22%	$41,776–$89,075
24%	$89,076–$170,050
32%	$170,051–$215,950
35%	$215,951–$539,900
37%	≥ $539,901

Problem 6. Suppose that the CPI last year was $255.67 and this year it is $268.21. Find the inflation rate from last year to this year. If a good cost $26.50 last year, what do you estimate that it will cost this year?

Problem 7. Suppose that the CPI last year was $157.33 and this year it is $161.22. Find the inflation rate from last year to this year. If this rate of inflation continues, find how much more goods will cost 6 years from now compared to this year.