

Math 123-02
Fall 2024
Dr. Lily Yen

Quiz 4

Show all your work

Name: _____
Number: _____
Signature: _____
Score: ____/18

Problem 1: Answer the questions. Write out steps for each; provide a two-decimal place accuracy when appropriate. One mark per part except two marks for the last part.

a. Convert the fraction *two and seven tenths* into a percent.

b. Find 7% of 650.

c. Janette wants to share 25 gummy bears out of a Haribo bag of 120 with her friends.
What percentage of her bag of gummy bears is left for herself?

d. If Hana finds in her drawer 30% of her pens are whiteboard pens, and she counts 18 whiteboard pens in total, how many pens does she have in her drawer?

e. Brian bought a pair of hiking boots for \$248.94, including tax. Suppose BC has a 12% combined tax, find the ticket price of Brian's hiking boots before tax.

Score: /5

Problem 2: David's family plans to attend *Die Fledermaus* this fall at the QE theatre. For the family dinner before the concert, David's grandmother budgets \$300, to include food cost, taxes, and a 15% tip. What is she going to pay for taxes and tip from the \$300 budgeted amount? Assume a 12% service tax.

Score: /3

/8

Problem 3: Brian's grandmother is offered by her bank three options for a \$9000 guaranteed investment certificate (GIC):

- a. 4.6 % compounded monthly;
- b. 4.65 % compounded annually; or
- c. 4.59 % compounded weekly. (Use 52 weeks per year.)

Compute the interest after one year in each case and decide which option earns Janette's grandmother the most.

Score: /5

Problem 4: David's friend, Tom, purchased a yacht and financed \$75 000 at \$3200 per month for 30 months. Assuming the add-on interest method, what was the amount of interest paid over 30 months? Find the annual interest rate charged on the loan.

Score: /3

Problem 5: If *Canadian Trust* visa card charges 20.9% on unpaid balance, how much would it cost in finance charge to leave \$687 unpaid past the due date for 30 days? Hint: Credit card companies use 365 days a year. For the sake of simplicity, use simple interest.

Score: /2