

Math 123-02
Fall 2024
Dr. Lily Yen

Assignment 4

Show all your work

Name: _____
Number: _____
Signature: _____
Score: ____/10

Problem 1: Answer each question to two decimal place accuracy when appropriate. Write out steps for each.

a. Convert the fraction *three fifths* into a percent.

b. Find 130 % of 90.

c. What fraction of 250 is 70? Simplify to lowest terms.

d. 9 is 3 % of what number?

e. When you pay a 45-dollar monthly cellphone/data package, how much in taxes do you need to pay? Hint: We have a 5 % GST and 7 % PST.

f. The following is a quote from *Entertainment Software Association of Canada*.

In 2021, the global industry will generate over US\$176 billion in revenue, a 21% increase from 2019. The Canadian video game industry has followed a similar trajectory over the same period. In 2021, the industry generated an estimated US\$3.4 billion in revenue, having grown by 20% since 2019.

What was the revenue in the Canadian video game industry from 2019?

Score: /6

Problem 2: David needs to decide which of the following two investment options is better: an annual interest rate of 4.9% compounded daily or an annual interest rate of 5.1% compounded semi-annually. Show all calculation which leads to your conclusion.

Score: /2

Problem 3: Brian's grandmother invests \$40 000 at a rate of 4.75% compounded quarterly. Find the time in years that it takes her investment to triple.

Score: /2