

Math 123-02
Fall 2024
Dr. Lily Yen

Quiz One

Show all your work

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

Problem 1: Calculate the following:

$$\begin{array}{r} \text{a) } \quad 21 \\ \times 19 \\ \hline \end{array} \quad \begin{array}{r} \text{b) } \quad 61 \\ \times 59 \\ \hline \end{array} \quad \begin{array}{r} \text{c) } \quad 71 \\ \times 69 \\ \hline \end{array} \quad \begin{array}{r} \text{d) } \quad 201 \\ \times 199 \\ \hline \end{array}$$

Compare the answers with the numbers you multiplied. Look for a pattern to help you determine the following two products. 801×799 and 2000001×1999999

Score: ____/4

Problem 2: In a farm with geese and cows (at least one of each), suppose you count a total of 34 legs, how many of each kind may be on the farm?

Suppose in addition, you count 22 eyes in total from the geese and cows, how many of each kind do you have?

Score: ____/4

Problem 3: Oliver and Vicky just became friends with Yang, and they want to know when his birthday is. Yang gives them a list of ten possible dates:

January 11 17 28
March 7 17
July 15 25
December 7 11 25

Yang then tells Oliver and Vicky separately the month and the day of his birthday, respectively.

Oliver: I don't know when Yang's birthday is, but I know that Vicky doesn't know either.

Vicky: At first I didn't know when Yang's birthday is, but I know now.

Oliver: Then I also know when Yang's birthday is.

When is Yang's birthday?

Score: ____/2

/10
