

Math 190
Fall 2019
Dr. Lily Yen

Quiz 6

Show all your work

Family name: _____
Given name: _____
Student number: _____
Score: ____/16

No calculator on this quiz.

Problem 1: A student thinks that $\frac{3}{4} + \frac{2}{4} = \frac{5}{8}$. How do you think the misunderstanding arises?

Score: ____/2

Problem 2: Jenny and Leslie made chocolate milk by combining chocolate syrup and milk. Jenny used $\frac{1}{3}$ glass of syrup, the rest milk. Leslie, whose glass is twice as large as Jenny's, used $\frac{1}{4}$ glass of syrup, the rest milk. After mixing their chocolate milk they decide to empty their untouched drinks into a larger pitcher. What fraction of the combined mixture is chocolate syrup?

Score: ____/3

Problem 3: Four people share a pan of brownies, as suggested by the figure.

A	A	C	C
A	A	B	C
A	B	B	D

a. What is the ratio of A's share to B's share?

b. What part of the pan did A get?

c. A's share is how many times as large as B's share?

d. A and B together got how many times as much as C and D together?

e. What is the ratio of the total of A's and B's shares to the total of C's and D's shares?

Score: ____/5

/10

Problem 4: A husband and wife are driving to her mother's house. They have an appointment with a marriage counselor en route. After some time passes, the wife asks, "How far are we from our house?" The husband replies, "Half as far as from here to Pollyanna's office." A while after the appointment, they are 200 miles from where the wife asked her first question. She now asks a second question: "How far are we from Mother's house?" The husband takes advantage of the golden opportunity and responds, "I told you already: half as far as from here to Pollyanna's office." How far apart are the two houses? You may want to draw a diagram.

Problem 5: Lance is an avid cyclist who is trying to choose where he wants to live—preferably somewhere he won't have to compete with a lot of cars. You find two possible locations and give him the following information. Make an argument about where he should live based on his car versus bike criterion.

Location 1:	36 km ²	11 856 cars
Location 2:	41 km ²	13 250 cars

Score: /3

Score: /3