

**THE USE OF MATHEMATICS
IN A CONVERSATION ABOUT POVERTY**

CAPITAL COMMUNITY COLLEGE

COMMON MATHEMATICS ASSIGNMENT

SPRING 2003

COMMON MATH ASSIGNMENT SPRING 2003

The article that you have read for this project (“Poverty’s Web Widens” by Mike Swift, *Hartford Courant*, 22 May, 2002) provides background for you to write an interpretive paragraph and solve three related math problems. Throughout Capital Community College, students in many fields are participating in this Common Math Assignment, and the results will help the College to understand how our students approach several key mathematical issues. Your teacher will explain how this assignment fits into your course plan and how it will be graded in that context.

- Please start by completing the top part of the Common Math Assignment Record on the next page.
- The first part of the assignment is the interpretive paragraph described on the following page. Choose one question and write your response in the lower part of the page. Don’t hesitate to discuss the question with other people, but when you start writing, please compose your own response. Bring it with you to class before you do the math problems.
- The second part consists of three graphing questions that your teacher will give you during an upcoming class. When you complete the graphing questions, please staple them to your interpretive paragraph and the CMA Record. Write your name lightly in pencil on the top of the packet and submit it to your teacher.

Your teacher will record your participation for course purposes, and then your name will be erased and your paper will be placed in a pool from which the Student Learning Assessment Team will randomly select samples for a second scoring. After providing some academic history information, even your Banner number will be removed. By the time the Assessment Team scores any paper, it will be totally anonymous. Therefore, the Assessment scoring cannot affect your transcript in any way.

Since Capital students have a wide range of mathematical backgrounds, we expect that some students will be able to answer all the questions easily and some will not. Don’t worry if you find some questions difficult. Show us your work as far as you can go with each question. Answers that represent your honest best effort are what we need most. They will provide us with clues to help us improve math instruction and support at Capital Community College.

COMMON MATH ASSIGNMENT RECORD SPRING 2003

Banner number _____ Course name _____

- 1) How many times have you visited the Math Center for help with work *other* than this assignment? _____ 0-2 _____ 3-6 _____ 7-10 _____ more than 10
- 2) On a scale of 1-4, in which 4 means very difficult and 1 means very easy, how hard were the parts of this assignment?
 the paragraph _____ question 1 _____ question 2 _____ question 3 _____
- 3) What did you like or dislike most about this assignment? _____

Thank you for helping with our research into ways of improving our programs.

Please do not write in the charts below.

* * * * *

1st reader: Circle holistic score for mathematical reasoning: 4 3 2 1 0

Then check boxes for analytical results:

| Score | A Numbers/ Operations | B Algebra/ Geometry | C Graphing | D Mathematical modeling |
|----------------------|--------------------------|------------------------|---------------|----------------------------|
| 4 Superior | | | | |
| 3 Proficient | | | | |
| 2 Essential | | | | |
| 1 In progress | | | | |

2nd reader: Circle holistic score for mathematical reasoning: 4 3 2 1

| Score | A Numbers/ Operations | B Algebra/ Geometry | C Graphing | D Mathematical modeling |
|----------------------|--------------------------|------------------------|---------------|----------------------------|
| 4 Superior | | | | |
| 3 Proficient | | | | |
| 2 Essential | | | | |
| 1 In progress | | | | |

COMMON MATH ASSIGNMENT, SPRING 2003
INTERPRETIVE PARAGRAPH ON DATA OBSERVATIONS AND PATTERNS

If your teacher assigns a special question for your class, please copy it under #1, and answer it in the space at the bottom of this page. If your teacher doesn't assign a special question, please circle ONE of the topics described in #2 & 3, and write a paragraph answering the italicized question. Bring your paragraph to class, where you will staple it to the graphing problems.

1. Reflection on a topic that fits your class:

2. Observe the two ends of the data table: Look at the populations of the dozen towns with the highest median income and the dozen with the lowest median income. Which group (top 12 or bottom 12) has the most towns of over 20,000 people? Which group has the most towns of over 100,000 people? In which group is the median income changing fastest? *What does this imply about the distribution of income in Connecticut?*

3. Observe regional unity: In the data table, highlight the town that you live in, and then highlight 4 or 5 of the towns that are geographically near to yours, towns that you consider to be part of your town's region. In this region, what are the differences and similarities among the town in terms of population, income, and rate of income change? *How do the differences and similarities help or hurt the region, and how do they help or hurt your own town?*

Write your paragraph here: