

CSCI-UA.609-001: Mathematics
Practice Exam (Jun 27, 2025)
Total: 100 points

Important Notes- READ BEFORE SOLVING THE EXAM

- If you perceive any ambiguity in any of the questions, state your assumptions clearly and solve

the problem based on your assumptions. We will grade

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1. If a rectangle has a length of 12 centimeters and a width of 5 centimeters, what is its perimeter? Explain how you calculated your answer, showing your work step-by-step. [20 points]

2. A baker uses 2 cups of flour for every 3 cups of sugar in a cake recipe. If she wants to make a larger cake and uses 6 cups of sugar, how many cups of flour will she need? Explain your reasoning. [25 points]

3. Sarah has 20 apples and wants to divide them equally among 4 friends. How many apples will each friend receive? Then, explain what would happen if Sarah tried to divide the apples equally among 5 friends instead. [25 points]

4. A train travels at a constant speed of 60 kilometers per hour. How far will it travel in 2 hours? If the train continues at this speed, how long will it take to travel 300 kilometers? Show your calculations. [30 points]