

CS2200-Fall23 Quiz 3

Quiz Policy

Always explain your answers. A turn in later than 11:59 pm on the due date will receive a grade of zero. Quiz solutions not your own and obtained from other students or any other sources is considered a violation of academic integrity. Ask the Instructor if you have academic integrity concerns about the solutions you are turning in.

**CS 2200
Quiz 03
Fall 2023**

Points: 10 points

Reference: Epp5 Sections: 3.2, 4.1, 4.4, 4.8, 4.10, 6.2

- 1) Find a counterexample to show that the following statement is false:
For all nonzero real numbers, a , b , c and d ,

$$\frac{a}{b} + \frac{c}{d} = \frac{a + c}{b + d}$$

- 2) Does 12 divide 72? Justify your answer.

- 3) Use the Euclidean algorithm to find the greatest common divisor of 284 and 168.
Show your work.

4) Epp5 problem 3.2.38 / 131

5) Epp5 problem 3.2.42 / 131

6) Use the element method for proving a set equals the empty set to
Prove that for all sets A and C ,

$$(A - C) \cap (C - A) = \emptyset$$

7) Epp5 problem 4.1.22 / 172

8) Epp5 problem 4.4.42 **b, c** / 199

9) Epp5 problem 4.10.27 **c** / 256