

## GROUP HOMEWORK 1, CPSC 421/501, FALL 2024

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Please note:

- (1) You must justify all answers; no credit is given for a correct answer without justification.
  - (2) Proofs should be written out formally.
  - (3) You do not have to use LaTeX for homework, but **homework that is too difficult to read will not be graded.**
  - (4) You may work together on homework in groups of up to four, **but you must submit a single homework as a group submission under Gradescope.**
- (0) Who are your group members? Please print if writing by hand.
- (1) Exercise 9.2.2 on the handout “Uncomputability in CPSC421/501.” [Note that although you cannot use Cantor’s theorem, your solution can be inspired by Cantor’s theorem.]
  - (2) Exercise 9.2.3 on the handout “Uncomputability in CPSC421/501.” [Note that although you cannot use Cantor’s theorem, your solution can be inspired by Cantor’s theorem.]
  - (3) Exercise 9.2.4 on the handout “Uncomputability in CPSC421/501.” [Note that although you cannot use Cantor’s theorem, your solution can be inspired by Cantor’s theorem.]
  - (4) Exercise 9.2.5 on the handout “Uncomputability in CPSC421/501.”

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