

CSI 409 — Fall 2017: Homework #6

Due date: Nov 17

Answer all questions on your own. Turn in your answers at the **beginning** of class. PRINT YOUR NAME and write your preferred e-mail address (e.g. zz6000@csc). If you are using more than one sheet of paper, make sure that you *staple* all the sheets together.

Remember that collaboration of any kind is not allowed.

1. Prove that the language

$$\{ a^m b^m c^n \mid n > 2m \geq 0 \}$$

is not context-free.

2. Prove that the language

$$\{ a^i b^j \mid (i^2 > j \geq 0) \}$$

is not context-free.