

CS 181 Spring 2018 Homework Week 6
Due Monday 14 May, 4:00 Online

1. Consider the following context free language over alphabet $\Sigma = \{a, b, c, d\}$:

$$\{ a^n b^m c^m d^n \mid n, m \geq 0 \}$$

1.a. [4+1 points] Give a CFG for this language and briefly justify / explain how it works. One point of the score will be for making the grammar unambiguous and briefly explaining why that is so.

1.b [7 points] Describe a PDA for this language using the graphical notation described in class on Wednesday.

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