

# 6.251/15.081J Recitation 4

## 1 Brief Discussion

### 1.1 Column Geometry

## 2 Examples

**Example 2.1.** [1], exercise 3.23.

**Example 2.2.** [1], exercise 3.14.

**Example 2.3.** (Taken from [2], chapter 2). Show that the simplex method cannot cycle unless we have at least two basic variables that are zero.

**Example 2.4.** [1], exercise 3.28.

**Example 2.5.** [1], exercise 3.31.

## References

- [1] Bertsimas, D.; Tsitsiklis, J.N. *Introduction to Linear Optimization*. Athena Scientific, 1997.
  - [2] Papadimitriou, C.H.; Steiglitz, K. *Combinatorial Optimization: Algorithms and Complexity*. Prentice-Hall, 1982.
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