Title

Author

1 Numbered Section
Blah, Blah, Blah . . .

1.1 Numbered Sub-Section
Blah, Blah, Blah . . .

2 Another Section
I can reference other sections, as section 1, or even my own section, as section 2.

Problem 1 (un-numbered section)

Part 1
We now give an $O(n^2)$ algorithm for the problem of sorting a set of $n$ non-negative integers.

Sorting algorithm A : Sort items according to size.

Main Theorem: A correctly sorts any set of $n$ non-negative integers in $O(n^2)$ time.
We show our theorem by showing the following

$$(x - 1)^2 \leq x^2$$

as follows

$$(x - 1)^2 = (x - 1)(x - 1) \leq x(x - 1) \leq x \cdot x = x^2$$