

# 1 First section

A sentence before the first one<sup>1</sup>

This is a sentence.<sup>2</sup> This is another sentence.<sup>3</sup>

**TODO: finish the first section**

This is a longer sentence that takes more than one line line maybe no still it random words to show that how tilde works i dont know Theorem 10

# 2 Second section

A sentence in the second section.<sup>1</sup>

In sentence [1,2]... **TODO: what did I want to say?**

$\mathbb{R}$

blah bla blha

$$\begin{pmatrix} x & a_{2,2} \\ 0 & f(10) \end{pmatrix}$$

$$f(x) = \begin{cases} x^2 & \text{if } x > 0 \\ -x^3 & \text{otherwise.} \end{cases}$$