## Homework Template

## Professor Sarah MATH 301 - Introduction to Proof and Abstract Reasoning September 15, 2025

Theorem x.yz. Delete this text and write theorem statement here.

*Proof.* Blah, blah, blah. Here is an example of the align environment:

$$\sum_{i=1}^{k+1} i = \left(\sum_{i=1}^{k} i\right) + (k+1)$$

$$= \frac{k(k+1)}{2} + k + 1$$
 (by inductive hypothesis)
$$= \frac{k(k+1) + 2(k+1)}{2}$$

$$= \frac{(k+1)(k+2)}{2}$$

$$= \frac{(k+1)((k+1)+1)}{2}.$$

Proposition x.yz. Let  $n \in \mathbb{Z}$ .

Disproof. Blah, blah, blah. I'm so smart.