

**Source:** 2020MATH530/KBe2020math530floIndex.md

#flo #disorganized #incomplete

More proof presentations

$\mathbb{R}$  vs  $\mathbb{R}$

## 1 | Proof by Induction

Using Axler 2.C 10 as an example.

### 1.1 | Induction building blocks

#### 1.1.1 | Base Case:

**Prove for the simplest case**

Prove for  $\mathcal{P}_0(\mathbb{R})$ .

#### 1.1.2 | Inductive Step

**Show that if case  $n$  is correct, then case  $n + 1$  is also correct**

Assume that it works for  $\mathcal{P}_i(\mathbb{R})$ , then prove it for  $\mathcal{P}_{i+1}(\mathbb{R})$ .

---