

More on induction proofs

It can be helpful to say what you want to show:

- ▶ For weak induction, you might want to show that $P(n)$ implies $P(n + 1)$
- ▶ For strong induction you might want to show that $P(1) \wedge P(2) \wedge \dots \wedge P(n)$ implies $P(n + 1)$

Justify every step (e.g., every equality sign) that isn't due just to arithmetic:

- ▶ Show where you are using your inductive hypothesis
- ▶ Show where you are using the definitions you were given