$\boxed{\text{Math Induction Writing Guidelines}}$

When writing an induction proof, you need to follow each of the general proof writing guidelines from class. Remember to *keep your reader informed*; thus for an induction proof you need to:

(1) say what you are trying to show inductively

(2) say what your induction variable is (e.g., if you are trying to show $(\forall n \in \mathbb{N}) [P(n)]$
   then say: We will show that *blub* holds for each $n \in \mathbb{N}$ by induction on n.)

(3) indicate where your base step begins

(4) indicate where your base step ends

(5) indicate where your inductive step begins

(6) clearly state your inductive hypothesis (IH)

(7) clearly state your inductive conclusion (IC)

(8) indicate where your inductive step ends.

As with any proof, clean up your *Thinking Land*:

(9) do NOT pull your reader through the mud with you

(10) in the base step confirm only the cases of n (or whatever letter you call you inductive variable) that you need to show (no more and no less).