

You *must* clearly state the base case, clearly state the inductive hypothesis, and clearly state where in the inductive step you are making use of the inductive hypothesis.

Even if there is a simpler method available, prove these using mathematical induction.

Section 5.1:

10, 22, 32, 50

20 points each proof; 5 points for 5.1.10.a and 5.1.50