

Math 215 Homework

January 28, 2008

1. Show by induction that 2 divides $n^2 - n$
2. Prove by induction that for all n that $\sum_{i=1}^n \frac{1}{i(i+1)} = \frac{n}{n+1}$.
3. Prove by induction that for all $n \geq 4$ that $n! > 2^n$.