

14 BASIS Step $2(3)+1 < 2^3$, $n=3, 4, \dots$
 $7 < 9$

INDUCTIVE step $2n+1 \leq 2^n$, $n=3, 4, \dots$ is true

SHOW $2(n+1)+1 < 2^{n+1}$, $n=3, 4, \dots$

$$= (2n+1) + 2$$

$$\leq 2^n + 2 \leq 2^n \cdot 2 = 2^{n+1}$$