

Proof By Induction (Inequalities)

Q1

Prove by induction that $n! > n^2 + n$ for all integers $n \geq 4$.

Q2

Prove by induction that $2^n > x^2$ for all integers $n \geq 5$.

Q3

Prove by induction that $3^n > 5 \times 2^n$ for all integers $n \geq 4$.