AP Computer Science A
Mathematical Induction Worksheet

Name _____
Date _____ Period _____

1) For all integers $n \geq 1$, show $2 + 2^2 + 2^3 + 2^4 + ... + 2^n = 2^{n+1} - 2$.

Base case:

Inductive hypothesis:

Inductive step:

2) For all integers $n \geq 1$, show $11^n - 6$ is divisible by 5.

Base case:

Inductive hypothesis:

Inductive step: