IB Math HL 2 Mathematical Induction Exit Slip Name

Problems 1 – 4: Use the Principle of Mathematical Induction to prove each statement.

1. If a sequence is defined by  and  for all , then .

2.  for all .

3.  is divisible by 4 for all .

4.  for all .

5. Consider the function .

a. Find i.  ii.  iii.  iv. 

b. Conjecture a formula for .

c. Use the principle of mathematical induction to prove your conjecture.

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