

Quiz #3

Name: _____

Marker's name: _____

Instructions to student: Using pen, write your answers in the space provided and leave the right column blank.

Instructions to marker: Write only in the right column, and clearly indicate the mark you believe is deserved in each category. Write the total in the provided blank.

Prove the following statement about sequences of numbers:

$$[(a_1 \geq 1) \wedge (\forall i \in \mathbb{N}, a_{2i} \geq 2a_i)] \Rightarrow (\exists i \in \mathbb{N}, a_i \geq 5)$$

Justify each step of your proof by indicating the rule you're using, or by writing "math" if you're only using general mathematical results.

For marking only:

5 marks:
2 for structure
2 for correctness
1 for justification

Proof Structure:
0 = improper
1 = somewhat right
2 = right, can use to prove statement

Argument Correctness:
0 = not convincing
1 = halfway there (minor flaws)
2 = convincing

Justification:
0 = often wrong
0.5 = sometimes
1 = easy to read

Total: _____