

Computability Assignment

Year 2012/13 - Number 11

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More information about assignments at <http://disi.unitn.it/~zunino/teaching/computability/assignments>

Please do not submit a file containing only the answers; edit this file, instead, filling the answer sections.

Note

Remember that $undefined \not\succeq x$ for any natural x .

1 Question

Consider the set

$$A = \{n \mid \forall x \in \mathbb{N}. \phi_n(x) > x\}$$

Prove that $K \leq_m A$.

1.1 Answer

Write your answer here.

2 Question

Prove that $\bar{K} \leq_m A$, with the above A .

2.1 Answer

Write your answer here.

3 Question

Consider the set

$$B = \{\text{pair}(n, m) \mid \phi_n(0) = \phi_m(0)\}$$

Prove that $\bar{K} \leq_m B$.

3.1 Answer

Write your answer here.