Information Theory
Problem Set 08 - Kolmogorov Complexity and Universal Probability

Luís Felipe Ramos Ferreira

lframos_ferreira@outlook.com

1. (a) The Kolgomorov complexity of a string s is the length of the shortest program that can be passed to a UTM (Universal Turing Machine), so that the UTM outputs the string s and then halts.

    (b) when te kolh complexity is bigger then the lenght of the string

    (c)

2. 2

3. (a) a

    (b) b

4. (a) a

    (b) b

References

[1] David J. C. MacKay. *Information Theory, Inference and Learning Algorithms.* 7th edition, 2005.