

Homework 1

CS 531
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- 1 Show that the encoding schemes e_1 , e_2 , and e_3 defined on page 7 of the notes are all polynomially related.
- 2 Define a length function for instances G which are undirected graphs and show that it is “reasonable” by showing that it is polynomially related to encoding scheme e_1 , e_2 , or e_3 on page 7 of the notes.
- 3 For each of the six decision problems defined on pp. 46–47 of Garey and Johnson, define a simple “reasonable” length function. It is not necessary to show that it is polynomially related to any particular encoding scheme.