NDMI028 - LAK
November 21, 2024 – Spectra of graphs III

In class problems

34. Show that a graph of diamater d has at least $d + 1$ different eigenvalues.

35. Find two non-isomorphic graphs with the same spectrum.

36. Determine the spectrum of the hypercube $Q_n = K_q^n$.

37. Determine all integers r for which there exists an r-regular graph of girth greater than 4 with exactly $r^2 + 2$ vertices.