

Homework 2: Vieta's formula

Konstantin Miagkov

October 14, 2018

Problem 1.

Find all pairs of real numbers $p \neq q$ such that $2p$ and $p + q$ are roots of the quadratic equation $x^2 + px + q = 0$.

Problem 2.

Let $ABCD$ be a convex quadrilateral. Points E, F, G, H are marked on the sides AB, BC, CD, DA respectively. Show that the circumcircles of triangles HAE, EBF, FCG and GDH cover $ABCD$ completely.