
Daoud Bshouty, Walter Hengartner, Abdallah Lyzzaik, and Allen Weitsman

Valency of Harmonic Mappings onto Bounded Convex Domains

CMFT 1 No.2 (2001), 479–499. [ISSN 1617-9447]

Abstract. We give two harmonic mappings of the open unit disc onto bounded convex domains that extend continuously to the unit circle as 2-valent local homeomorphisms onto the boundary of the image domains such that the valency of one mapping is 6 and of the other is 8. This provides a negative answer to a conjecture of Sheil-Small.

Keywords. Harmonic mappings, p -valent functions.

2000 MSC. Primary 30C55; Secondary 31A05, 30F99.

Received. April 3, 2002, in revised form August 15, 2002.