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Counting edge-transitive, one-ended, three-connected planar maps with a given growth rate

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Abstract

B. Grünbaum and G. C. Shephard have classified one-ended, 3-connected, planar, edge-transitive maps. It turns out that each of these maps can be described uniquely by an edge-symbol $(p, q; k, l)$. Recently the growth rate of each of these maps has been determined by S. Graves, T. Pisanski and M. E. Watkins. We determine the number of edge-transitive maps for a given growth rate.

Keywords: Tessellation, edge-transitive, Bilinski diagram, exponential growth, enumeration.

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Štetje povezavno-tranzitivnih, enovitih, tri-povezanih ravninskih zemljevidov z dano hitrostjo rasti

Abstract

B. Grünbaum in G. C. Shephard sta klasificirala enovite, 3-povezane, ravninske, povezavno-tranzitivne zemljevide. Izkaže se, da se da vsakega od teh zemljevidov enolično opisati s povezavnim simbolom $(p, q; k, l)$. Nedavno so hitrost rasti vsakega od teh zemljevidov določili S. Graves, T. Pisanski in M. E. Watkins. V tem članku določimo število povezavno-tranzitivnih zemljevidov z dano hitrostjo rasti.

Ključne besede: Tlakovanje, povezavno-tranzitiven, diagram Bilinskega, eksponentna rast, enumeracija.