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GENERALISED CLASS OF STARLIKE FUNCTIONS OF KOEBE TYPE WITH COMPLEX ORDER

(Kelas Fungsi Bak Bintang Teritlak Jenis Koebe Peringkat Kompleks)

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ABSTRACT

In this paper, we investigate some results on subordination, superordination, best dominant result and the sandwich theorem of the new class $\mathcal{C}_b(\alpha,\beta,\eta)$ of analytic functions with Koebe type. Further, by making use of Jack's Lemma as well as several differential and other inequalities, sufficient condition for starlikeness of the class $\mathcal{C}_b(\alpha,\beta,\eta)$ of *n*-fold symmetric analytic functions of Koebe type is derived. Relevant connections of the results presented here with those given in earlier works are also indicated.

Keywords: subordination; superordination; analytic function; starlikeness; Koebe type

ABSTRAK

Dalam makalah ini dikaji beberapa hasil berkenaan dengan subordinasi, superordinasi, dominan terbaik dan teorem himpitan bagi kelas fungsi baharu $\mathcal{C}_b(\alpha,\beta,\eta)$ yang merupakan fungsi analisis jenis Koebe. Selanjutnya, dengan menggunakan Lema Jack bersama beberapa ketaksamaan pembeza dan ketaksamaan yang lain, syarat cukup untuk kebakbintangan bagi kelas fungsi $\mathcal{C}_b(\alpha,\beta,\eta)$ yang analisis jenis Koebe simetri lipat-*n* diperoleh. Hubungan yang berkaitan dengan kajian-kajian terdahulu juga dinyatakan.

Kata kunci: subordinasi; superordinasi; fungsi analisis; kebakbintangan; jenis Koebe

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