

ON THE ADJACENT VERTEX-DISTINGUISHING EDGE COLORING OF $C_m \cdot F_n$

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Abstract

Supposing $C_m = u_1u_2 \cdots u_nv_1$,

$$V(C_m \cdot F_n) = \{u_i | i = 1, 2, \dots, m\} \cup \{v_{ij} | i = 1, 2, \dots, m; \\ j = 1, 2, \dots, n\},$$

$$E(C_m \cdot F_n) = E(C_m) \cup \{u_iv_{ij} | i = 1, 2, \dots, m; j = 1, 2, \dots, n\} \\ \cup \{v_{ij}v_{i(j+1)} | i = 1, 2, \dots, m; j = 1, 2, \dots, n-1\}.$$

In this paper, we present adjacent vertex-distinguishing edge chromatic number of $C_m \cdot F_n$ ($n \geq 2$).

Keywords and phrases: graph, cycle, fan, adjacent vertex-distinguishing edge coloring.

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