

On Gracefulness of Disjoint Union of Complete Bipartite Graphs and Generalized Lotus Graphs

Sin-Min Lee, Felicity Wang*

Lynbrook High School, San Jose, CA 95129

`fwang2206@gmail.com`

The disjoint union of two graceful graphs does not need to be graceful. Rosa proved that all complete bipartite graphs are graceful. Lee showed that Lotus graph $L(n)$ is k -graceful. We investigate under what condition the union of complete bipartite graph $K(a, b)$ and generalized lotus graph $L(n, k)$ is graceful.