ABSTRACT

IN THIS EXPOSE FOR ANY GRAPH G HAVING VERTICES V AND EDGES E . A GRAPH WITH VERTEX V AND EDGE E IS SAID TO HAVE DIFFERENCE LABELING OF G ,IF FOR AN INJECTION F FROM V TO THE SET OF NON-NEGATIVE INTEGER TOGETHER WITH WEIGHT FUNCTION F ∗ ON E GIVEN BY F ∗ (UV) = |F(U) − F(V)| FOR EVERY EDGE UV ∈ E . A GRAPH WITH A DIFFERENCE LABELING ON IT IS CALLED A LABELED GRAPH. ALSO A GRAPH WITH DISTINCT VERTEX LABELED GRAPH IS CALLED VERTEX GRACEFUL LABELING. THIS THEORY PROVIDES A VIEWPOINT THAT HELPS PROVIDE NEW INSIGHTS IN THE DISCOVERY OF VERTEX GRACEFUL AND DIFFERENCE LABELING ON GEAR GRAPH GN , SWASTHICK GRAPH SN , COCONUT TREE GRAPH CTN , Q TREE, Y TREE