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Cunningham Square, Providence, RI 02918. *Prime Graph Labelings*.

A graph G on v vertices has a prime labeling if and only if there exists a labeling of the vertices with the numbers 1 through v such that any two adjacent vertices have labels which are relatively prime. Determining which graphs have prime labelings is an interesting and accessible problem for collaboration with undergraduate students. I will discuss the prime labeling problem focussing on my recent work with students involving the prime labeling of hypercubes, Q_k , and grid graphs, $P_m \times P_n$. (Received September 08, 2014)