

Designs for forests with seven edges

*Danny Banegas**, *University of Minnesota: Duluth*, baneg003@umn.edu

Bryan Freyberg, *University of Minnesota: Duluth*, frey0031@d.umn.edu

Let G be a forest with seven edges and $n > 8$ be an integer. We prove that G decomposes the complete graph K_n if and only if $n \equiv 0, 1, 7$, or $8 \pmod{14}$.

Keywords: designs, forests, decompositions