

A clone is a set of finitary operations closed under composition and containing all projections. We say it is finitely generated if there exist a finite subset  $\{f_1, \dots, f_n\}$  such that all the other operations can be expressed as compositions of  $f_1, \dots, f_n$ . We present examples of finitely and non-finitely generated clones on finite sets. First, we demonstrate an explicit construction of operations in finitely generated clones. Secondly, we define relations such that the clones of compatible operations have restricted essential arity, and discuss several modifications. Lastly, for every binary operation  $f$  which cannot be composed to yield an essentially ternary operation, we find a maximal clone of essentially at most binary operations containing  $f$ .