

For positive integers  $k, r$ , and  $n \geq k + 1$ , the iterated floor function  $f_{k,r}$  is defined by

$$f_{k,r}(k + 1) = r;$$

$$f_{k,r}(n) =$$

$$\lfloor n/n - kf_{k,r}(n - 1) \rfloor, \quad n > k + 1$$

.

A special case ( $k = r = 3$ ) of this function occurs as an upper bound on the number of 3-subsets, excluding tetrahedra, of an  $n$ -set (Turàn's problem). For certain values of  $k$  and  $r$ , this note establishes closed form expressions for  $f_{k,r}$ , then uses them to prove some interesting properties.