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In Richard P. Stanley's 1986 text, *Enumerative Combinatorics*, the following problem is posed: Fix a natural number  $k$ . Consider the posets  $P$  of cardinality  $n$  such that, for  $0 < i < n$ ,  $P$  has exactly  $k$  order ideals (down-sets) of cardinality  $i$ . Let  $f_k(n)$  be the number of such posets. What is the generating function  $\sum f_k(n)x^n$ ?

In this paper, the problem is solved. (Received March 11, 2008)