1039-06-154 **Jonathan David Farley*** (lattice@caltech.edu), Department of Mathematics, Mail Code 253-37, California Institute of Technology, Pasadena, CA 91125, and **Ryan Klippenstine**, Department of Math and Computer Science, Brandon University, Brandon, Manitoba R7A 6A9, Canada. *Distributive Lattices of Small Width: A Problem from Richard Stanley's 1986 Text Enumerative Combinatorics.*

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)