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Jessica Striker* (jessica@math.umn.edu). *A simple bijection between alternating sign matrices with no -1 's and descending plane partitions with no special parts.*

We present a straightforward bijection between descending plane partitions with no special parts and alternating sign matrices with no -1 's (i.e. permutation matrices). This bijection has the desirable property that the number of parts of the descending plane partition corresponds to the inversion number of the permutation. Additionally, the number of maximum parts in the descending plane partition corresponds to the position of the 1 in the last column of the permutation matrix. We also discuss the possible extension of this approach to finding a bijection between all alternating sign matrices and descending plane partitions. (Received February 15, 2010)