1. Introduction. Let $H(n, r)$ denote the number of $n \times n$ arrays $[a_{ij}]$, where the $a_{ii}$ are nonnegative integers that satisfy

$$\sum_{i=1}^{n} a_{ii} = r.$$  

Anand, Dumir and Gupta [1] have proved that if $A(n) = H(n, 2)/(n!)^2$, then

$$\sum_{n=0}^{\infty} A(n)x^n = (1 - x)^{-1/2}e^{x/2}.$$  

They have also proved that

$$H(3, r) = \binom{r}{2} + 3\binom{r}{4},$$

from which it follows that

$$H(3, r)x^n = \frac{1 + x + x^2}{(1 - x)^{3/2}}.$$  

They conjecture that

$$H(n, r) = \sum_{i=0}^{n-1} c_i \binom{r + n + i - 1}{n + 2i - 1},$$

where the $c_i$ depend on $n$ alone.

In the present paper we consider an analogous problem for symmetric arrays. Let $S_n(r)$ denote the number of $n \times n$ arrays $a_{ij}$, where the $a_{ii}$ are integers such that

$$a_{ii} = a_{ji} \geq 0 \quad (i, j = 1, 2, \ldots, n)$$

and

$$\sum_{i=1}^{n} a_{ii} = r \quad (j = 1, 2, \ldots, n).$$

Clearly

$$S_n(0) = 1 \quad (n = 1, 2, 3, \ldots).$$

We shall show that

$$\sum_{n=0}^{\infty} S_n(1) \frac{x^n}{n!} = \exp(x + \frac{1}{2}x^2) \quad (S_0(1) = 1).$$