1 2,

$- \frac{}{4!}$ 4

$$\frac{}{4!}\int {}^{4}\left[\frac{}{(\quad)}\right]^{4} \qquad \int {}^{4}\left\{\frac{1}{2}\left[(\quad)^{2}-\ {}^{2}\ {}^{2}\right]+\quad\right\} \quad [3] \qquad -$$

1 2 (1, 2, 3, 4)

1 2 3 4 ( ) (1,⋯,)

− ,], ≠

$$= \frac{1}{\quad} \prod (\quad) \quad [8]$$

!

$$= \prod \quad ! \ [9]$$

$$Z(J) \quad \sum \quad \sum \prod \frac{1}{!} (\quad) \quad \prod \sum \frac{1}{!} (\quad) = \prod \quad = \Sigma \quad [10]$$

$(\, , \,)$

$Z(J = 0, \ )$

$(\, , \,)$