

$$\begin{array}{c}
 \text{---} \bigcirc J \begin{array}{c} \nearrow 1 \\ \vdots \\ \searrow n \end{array} = \sum_{V_3} \sum_i \begin{array}{c} \text{---} \bigcirc V_3 \begin{array}{c} \nearrow \bigcirc J \begin{array}{c} \nearrow 1 \\ \vdots \\ \searrow i \\ \vdots \\ \searrow i+1 \end{array} \\ \searrow \bigcirc J \begin{array}{c} \nearrow i+1 \\ \vdots \\ \searrow n \end{array} \end{array} \\
 + \sum_{V_4} \sum_{i,j} \begin{array}{c} \text{---} \bigcirc V_4 \begin{array}{c} \nearrow \bigcirc J \begin{array}{c} \nearrow 1 \\ \vdots \\ \searrow i \\ \vdots \\ \searrow i+1 \end{array} \\ \text{---} \bigcirc J \begin{array}{c} \nearrow i+1 \\ \vdots \\ \searrow j+i \\ \vdots \\ \searrow j+i+1 \end{array} \\ \searrow \bigcirc J \begin{array}{c} \nearrow j+i+1 \\ \vdots \\ \searrow n \end{array} \end{array} \\
 + \text{permutations}
 \end{array}$$