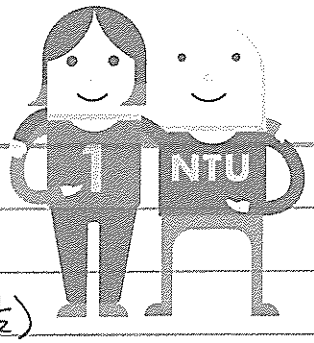

$\sum_{i=2}^{n/2} (n-i)!$ ($\frac{n}{2}-1$ terms)

$= (n-2)! + (n-3)! + (n-4)! + \ldots + (n-\frac{n}{2})!$

$= 1\times2\times3\times\ldots\times(n-3)\times(n-2) + 1\times2\times3\times\ldots\times(n-3) + \ldots + 1\times2\times3\times\ldots\times(n-\frac{n}{2})$

$= 1\times2\times3\times\ldots\times\underbrace{(n-\frac{n}{2})}_{\frac{n}{2}} + \ldots + 1\times2\times3\times\ldots\times(n-\frac{n}{2})\times\ldots\times\underbrace{(n-3)\times(n-2)}_{\frac{n}{2}-2 \text{ terms}}$

$= \frac{n}{2}! + \frac{n}{2}! \times (\frac{n}{2}+1) + \frac{n}{2}! \times (\frac{n}{2}+1)\times(\frac{n}{2}+2) + \ldots + \frac{n}{2}! \times (\frac{n}{2}+1)\times(\frac{n}{2}+2)\times\ldots\times(n-2)$

$= \frac{n}{2}! \left[1 + (\frac{n}{2}+1) + (\frac{n}{2}+1)(\frac{n}{2}+2) + \ldots + (\frac{n}{2}+1)(\frac{n}{2}+2)\cdots(n-2)\right]$

$= \frac{n}{2}! \left[1 + (\frac{n}{2}+1)\left[1 + (\frac{n}{2}+2) + \right.\right.$