

$$(1, 2, \dots, n, n + 1, n + 2, \dots, n + m)$$



$$(\sigma(\textcolor{red}{1}), \sigma(\textcolor{red}{2}), \dots, \sigma(\textcolor{red}{n}), n + \tau(\textcolor{blue}{1}), n + \tau(\textcolor{blue}{2}), \dots, n + \tau(\textcolor{blue}{m}))$$