| | Pieces in solution | # of solutions | |
|---|---|---|---|
| N=2 | 2 pieces | 1 | $1^2$ |
| | 1 piece | 2 | $2^1$ |
| N=3 | 3 pieces | 1 | $1^3$ |
| | 2 pieces | 4 | $2^2$ |
| | 1 pies | 3 | $3^1$ |
| N=4 | 4 pieces | 1 | $1^4$ |
| | 3 piece | 8 | $2^3$ |
| | 2 pieces | 9 | $3^2$ |
| | 1 piece | 4 | $4^1$ |
| N=5 | 5 pieces | 1 | $1^5$ |
| | 4 pieces | 16 | $2^4$ |
| | 3 pieces | 27 | $3^3$ |
| | 2 pieces | 16 | $4^2$ |
| | 1 piece | 5 | $5^1$ |

$$\sum_{P=1}^{N} (N-P+1)^P = \#\text{ of Solutions for } N \text{ pieces}$$