

```
?- nQueens(1,S).  
S = [1] ;  
false.
```

```
?- nQueens(2,S).  
false.
```

```
?- nQueens(3,S).  
false.
```

```
?- nQueens(4,S).  
S = [3, 1, 4, 2] ;  
S = [2, 4, 1, 3] ;  
false.
```

```
?- nQueens(5,S).  
S = [3, 1, 4, 2, 5] ;  
S = [2, 4, 1, 3, 5] ;  
S = [4, 1, 3, 5, 2] ;  
S = [1, 4, 2, 5, 3] ;  
S = [4, 2, 5, 3, 1] ;  
S = [1, 3, 5, 2, 4] ;  
S = [3, 5, 2, 4, 1] ;  
S = [2, 5, 3, 1, 4] ;  
S = [5, 3, 1, 4, 2] ;  
S = [5, 2, 4, 1, 3] ;  
false.
```

```
?- nQueens(6,S).  
S = [4, 1, 5, 2, 6, 3] ;  
S = [5, 3, 1, 6, 4, 2] ;  
S = [2, 4, 6, 1, 3, 5] ;  
S = [3, 6, 2, 5, 1, 4] ;  
false.
```

```
?- nQueens(7,S).  
S = [4, 1, 5, 2, 6, 3, 7] ;  
S = [5, 3, 1, 6, 4, 2, 7] ;  
S = [5, 1, 6, 4, 2, 7, 3] ;  
S = [1, 5, 2, 6, 3, 7, 4] ;  
S = [5, 2, 6, 3, 7, 4, 1] ;  
S = [2, 4, 6, 1, 3, 5, 7] ;
```

```
S = [2, 4, 6, 1, 3, 5, 7] ;
S = [4, 6, 1, 3, 5, 7, 2] ;
S = [3, 6, 2, 5, 1, 4, 7] ;
S = [6, 2, 5, 1, 4, 7, 3] ;
S = [3, 1, 6, 2, 5, 7, 4] ;
S = [6, 1, 3, 5, 7, 2, 4] ;
S = [6, 3, 5, 7, 1, 4, 2] ;
S = [4, 1, 3, 6, 2, 7, 5] ;
S = [3, 1, 6, 4, 2, 7, 5] ;
S = [6, 3, 1, 4, 7, 5, 2] ;
S = [6, 4, 7, 1, 3, 5, 2] ;
S = [1, 6, 4, 2, 7, 5, 3] ;
S = [6, 4, 2, 7, 5, 3, 1] ;
S = [2, 6, 3, 7, 4, 1, 5] ;
S = [6, 3, 7, 4, 1, 5, 2] ;
S = [2, 5, 1, 4, 7, 3, 6] ;
S = [5, 1, 4, 7, 3, 6, 2] ;
S = [1, 3, 5, 7, 2, 4, 6] ;
S = [3, 5, 7, 2, 4, 6, 1] ;
S = [2, 5, 3, 1, 7, 4, 6] ;
S = [2, 5, 7, 4, 1, 3, 6] ;
S = [5, 7, 2, 4, 6, 1, 3] ;
S = [5, 7, 2, 6, 3, 1, 4] ;
S = [2, 4, 1, 7, 5, 3, 6] ;
S = [4, 2, 7, 5, 3, 1, 6] ;
S = [4, 7, 5, 2, 6, 1, 3] ;
S = [3, 7, 4, 1, 5, 2, 6] ;
S = [7, 4, 1, 5, 2, 6, 3] ;
S = [2, 7, 5, 3, 1, 6, 4] ;
S = [7, 5, 3, 1, 6, 4, 2] ;
S = [1, 4, 7, 3, 6, 2, 5] ;
S = [4, 7, 3, 6, 2, 5, 1] ;
S = [3, 7, 2, 4, 6, 1, 5] ;
S = [7, 2, 4, 6, 1, 3, 5] ;
S = [7, 3, 6, 2, 5, 1, 4] ;
false.
```

```
?- nQueens(8,S).
S = [5, 2, 6, 1, 7, 4, 8, 3] ;
S = [6, 3, 5, 7, 1, 4, 2, 8] ;
S = [6, 4, 7, 1, 3, 5, 2, 8] ;
S = [3, 6, 2, 7, 5, 1, 8, 4] ;
```


S = [6, 3, 1, 7, 5, 8, 2, 4] ;
S = [6, 2, 7, 1, 3, 5, 8, 4] ;
S = [6, 4, 7, 1, 8, 2, 5, 3] ;
S = [3, 6, 2, 7, 1, 4, 8, 5] ;
S = [6, 3, 7, 2, 4, 8, 1, 5] ;
S = [6, 3, 7, 4, 1, 8, 2, 5] ;
S = [2, 6, 1, 7, 4, 8, 3, 5] ;
S = [6, 2, 7, 1, 4, 8, 5, 3] ;
S = [6, 3, 7, 2, 8, 5, 1, 4] ;
S = [5, 7, 2, 6, 3, 1, 4, 8] ;
S = [5, 7, 2, 6, 3, 1, 8, 4] ;
S = [4, 7, 5, 3, 1, 6, 8, 2] ;
S = [4, 7, 5, 2, 6, 1, 3, 8] ;
S = [7, 5, 3, 1, 6, 8, 2, 4] ;
S = [4, 2, 7, 3, 6, 8, 1, 5] ;
S = [4, 2, 7, 3, 6, 8, 5, 1] ;
S = [1, 7, 4, 6, 8, 2, 5, 3] ;
S = [7, 2, 6, 3, 1, 4, 8, 5] ;
S = [2, 7, 3, 6, 8, 5, 1, 4] ;
S = [7, 3, 1, 6, 8, 5, 2, 4] ;
S = [5, 2, 4, 7, 3, 8, 6, 1] ;
S = [3, 5, 7, 1, 4, 2, 8, 6] ;
S = [5, 7, 4, 1, 3, 8, 6, 2] ;
S = [5, 7, 2, 4, 8, 1, 3, 6] ;
S = [2, 5, 7, 4, 1, 8, 6, 3] ;
S = [5, 7, 1, 4, 2, 8, 6, 3] ;
S = [5, 3, 1, 7, 2, 8, 6, 4] ;
S = [2, 5, 7, 1, 3, 8, 6, 4] ;
S = [5, 7, 1, 3, 8, 6, 4, 2] ;
S = [4, 2, 7, 5, 1, 8, 6, 3] ;
S = [7, 4, 2, 5, 8, 1, 3, 6] ;
S = [3, 1, 7, 5, 8, 2, 4, 6] ;
S = [2, 7, 5, 8, 1, 4, 6, 3] ;
S = [1, 7, 5, 8, 2, 4, 6, 3] ;
S = [4, 7, 3, 8, 2, 5, 1, 6] ;
S = [4, 7, 1, 8, 5, 2, 6, 3] ;
S = [7, 2, 4, 1, 8, 5, 3, 6] ;
S = [3, 7, 2, 8, 5, 1, 4, 6] ;
S = [7, 3, 8, 2, 5, 1, 6, 4] ;
S = [7, 4, 2, 8, 6, 1, 3, 5] ;
S = [3, 7, 2, 8, 6, 4, 1, 5] ;
S = [7, 1, 3, 8, 6, 4, 2, 5] ;

S = [7, 1, 3, 8, 6, 4, 2, 5] ;
S = [5, 2, 4, 6, 8, 3, 1, 7] ;
S = [5, 1, 4, 6, 8, 2, 7, 3] ;
S = [5, 3, 1, 6, 8, 2, 4, 7] ;
S = [4, 6, 1, 5, 2, 8, 3, 7] ;
S = [6, 4, 1, 5, 8, 2, 7, 3] ;
S = [6, 3, 5, 8, 1, 4, 2, 7] ;
S = [3, 6, 2, 5, 8, 1, 7, 4] ;
S = [6, 1, 5, 2, 8, 3, 7, 4] ;
S = [3, 6, 4, 2, 8, 5, 7, 1] ;
S = [3, 6, 4, 1, 8, 5, 7, 2] ;
S = [6, 4, 2, 8, 5, 7, 1, 3] ;
S = [6, 3, 1, 8, 5, 2, 4, 7] ;
S = [3, 6, 8, 1, 5, 7, 2, 4] ;
S = [2, 4, 6, 8, 3, 1, 7, 5] ;
S = [4, 6, 8, 3, 1, 7, 5, 2] ;
S = [4, 6, 8, 2, 7, 1, 3, 5] ;
S = [3, 6, 8, 2, 4, 1, 7, 5] ;
S = [3, 6, 8, 1, 4, 7, 5, 2] ;
S = [6, 3, 1, 8, 4, 2, 7, 5] ;
S = [2, 6, 8, 3, 1, 4, 7, 5] ;
S = [6, 8, 2, 4, 1, 7, 5, 3] ;
S = [1, 6, 8, 3, 7, 4, 2, 5] ;
S = [4, 2, 5, 8, 6, 1, 3, 7] ;
S = [4, 1, 5, 8, 6, 3, 7, 2] ;
S = [5, 8, 4, 1, 3, 6, 2, 7] ;
S = [3, 5, 2, 8, 6, 4, 7, 1] ;
S = [1, 5, 8, 6, 3, 7, 2, 4] ;
S = [5, 1, 8, 6, 3, 7, 2, 4] ;
S = [4, 2, 8, 6, 1, 3, 5, 7] ;
S = [8, 3, 1, 6, 2, 5, 7, 4] ;
S = [2, 8, 6, 1, 3, 5, 7, 4] ;
S = [4, 8, 1, 3, 6, 2, 7, 5] ;
S = [8, 4, 1, 3, 6, 2, 7, 5] ;
S = [4, 1, 5, 8, 2, 7, 3, 6] ;
S = [3, 5, 8, 4, 1, 7, 2, 6] ;
S = [5, 3, 8, 4, 7, 1, 6, 2] ;
S = [5, 2, 8, 1, 4, 7, 3, 6] ;
S = [5, 1, 8, 4, 2, 7, 3, 6] ;
S = [5, 8, 4, 1, 7, 2, 6, 3] ;
S = [3, 5, 2, 8, 1, 7, 4, 6] ;
S = [4, 8, 5, 3, 1, 7, 2, 6] ;

```
S = [4, 8, 5, 3, 1, 7, 2, 6] ;  
S = [4, 2, 8, 5, 7, 1, 3, 6] ;  
S = [4, 8, 1, 5, 7, 2, 6, 3] ;  
S = [8, 2, 5, 3, 1, 7, 4, 6] ;  
S = [8, 2, 4, 1, 7, 5, 3, 6] ;  
S = [3, 8, 4, 7, 1, 6, 2, 5] ;
```

false.