

## 80 N-Queens problem:

code

```
#include <stdio.h>
```

```
#include <math.h>
```

```
int n[10];
```

```
int main()
```

```
{
```

```
    int n;
```

```
    printf("Enter the number of Queens (n)");
```

```
    scanf("%d", &n);
```

```
    for (int k=1; k<=n; k++)
```

```
        nQueens(k, n);
```

```
}
```

```
nQueens(int k, int n)
```

```
{
```

```
    for (int i=1; i<=n; i++)
```

```
        if (!isSafe(k, i))
```

```
            n[k] = i
```

```
            if (k == n)
```

```
                print(n);
```

```
            else
```

```
                nQueens(k+1, n);
```

```
}
```

```
}
```

```
}
```



```
int find(int k, int i)
```

```
{  
  for (int j = 1; j <= k-1; j++)
```

```
    if ((x[j] == i) || (abs(x[j]-i) == abs(j-k)))
```

```
      return 0
```

```
}
```

```
return 1
```

```
}
```