

## Practice Exercise #48: Search for 2D Pattern

[http://www.comp.nus.edu.sg/~cs1010/4\\_misc/practice.html](http://www.comp.nus.edu.sg/~cs1010/4_misc/practice.html)

**Reference:** Week 12 Discussion Question 7

**Date of release:** 27 October 2014

**Objective:** 2D array, searching

### Task statement:

Assuming that you have an 8×8 minefield and a 2×3 pattern. You are to write a program `search_pattern.c` to count the number of times the pattern appears in the minefield.

### Sample runs:

Enter minefield:

```
---****-
-*-*-**
*****
-*-*-*-
*****
**-*-**
-----
*****
```

Minefield entered:

```
---****-
-*-*-**
*****
-*-*-*-
*****
**-*-**
-----
*****
```

Enter search pattern:

```
***
*-*
```

Search pattern entered:

```
***
*-*
```

Answer = 4

---

Enter minefield:

```
*****
***_**
_**_***
****_
_**_***
*_*_*_*_
_**_**
_**_**
```

Minefield entered:

```
*****
***_**
_**_***
****_
_**_***
*_*_*_*_
_**_**
_**_**
```

Enter search pattern:

```
***
_ _ _
```

Search pattern entered:

```
***
_ _ _
```

Answer = 6