

### EXPERIMENT 3

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

```
#include <stdbool.h>
```

```
int main() {
```

```
    char input[100];
```

```
    printf("Enter an arithmetic expression: ");
```

```
    scanf("%s", input);
```

```
    int i = 0;
```

```
    while (input[i] != '\0') {
```

```
        if (input[i] == ' ' || input[i] == '\t' || input[i] == '\n') {
```

```
            i++;
```

```
            continue;
```

```
        }
```

```
        bool isValidOperator = false;
```

```
        if (input[i] == '+') {
```

```
            isValidOperator = true;
```

```
        } else if (input[i] == '-') {
```

```
            isValidOperator = true;
```

```
        } else if (input[i] == '*') {
```

```
            isValidOperator = true;
```

```
        } else if (input[i] == '/') {
```

```
            isValidOperator = true;
```

```
        } else if (input[i] == '=') {
```

```
            isValidOperator = true;
```

```
        }
```

```
        if (isValidOperator) {
```

```
            printf("%c - operator.\n", input[i]);
```

```
        } else {
```

```
            printf("%c - not an operator.\n", input[i]);
```

```
        }
```

```
        i++;
```

```
    }
```

```
    return 0;
```

```
}
```

## OUTPUT

Enter an arithmetic expression: A+B-C\*

A - not an operator.

+ - operator.

B - not an operator.

- - operator.

C - not an operator.

\* - operator.