

# Fill an array with fibonacci numbers 1,1,2,3,5,8,13,21,34,55,...

```
void fillPowers(int arr[], int length) {
    arr[0] = 1;
    arr[1] = 1;
    for (int i = 2; i < length; i++) {
        arr[i] = arr[i-1] + arr[i-2];
    }
}
```

```
void fillPowers(int arr[], int length) {
    int a = 1;
    int b = 1;
    arr[0] = a;
    arr[1] = b;
    for (int i = 2; i < length; i++) {
        arr[i] = a + b; // arr[i] = 8 , a = 3, b = 5
        a = b;         // a = 5; , b = 5
        b = arr[i];    // b = 8, a = 5
    }
}
```

```
void fillPowers(int arr[], int length) {
    for (int i = 0; i < length; i++) {
        arr[i] = (pow((1 + sqrt(5)) / 2, i + 1) - pow(-(1 + sqrt(5)) / 2, - (i + 1))) / sqrt(5);
    }
}
```



```
void fillPowers(int arr[], int length) {
    for (int i = 0; i < length; i++) {
        arr[i] = f(i);
    }
}
```