

Arrays [Data Structure]

Data \Rightarrow Unprocessed, not meaningful
Information \Rightarrow Processed, useful

```
int m1, m2, m3, . . . , m463;
```

```
m1 = scanf("%d", &m1);
```

```
m2 = scanf("%d", &m2);
```

```
⋮
```

```
m463 = scanf("%d", &m463);
```

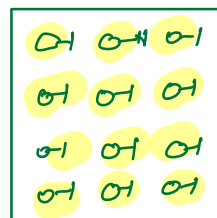
```
avg = (m1 + m2 + . . . + m463) / 463;
```

```
SOP(avg);
```

Array \Rightarrow Ordered collection of similar items



Bookshelf



Flood lights

Syntax

Declaration

```
int runs[];
```

```
int[] runs;
```

Initialisation

```
runs = new int[463];
```

```
int[] runs = new int[463];
```

```
int runs[] = new int[463];
```

Indices

```
int A[] = new int[5]
```

indices \Rightarrow 0 1 2 3 4

A \Rightarrow

| | | | | |
|---|---|----|---|---|
| 0 | 0 | 20 | 0 | 0 |
|---|---|----|---|---|

$A[2] = 20$

$SOP(A[2])$

Example

```
int matches[] = new int[463];
```

```
for(int i=0; i<463; i++){  
    matches[i] = scn.nextInt();  
}
```

```
int sum = 0;
for (int i = 0; i < 463; i++) {
    sum = sum + matches[i];
}
```

```
int avg = sum / 463;
SOP(avg);
```