

- **Adding elements to a vector**

Elements can be added to an existing vector by assigning values to the new elements.

- MATLAB assigns zeros to the elements that are between the last original element and the new element.

EX: Define vector X with 4 elements. Adding 6 elements starting with the 5th

```
X= 1: 4 ;
```

```
X(5: 10)= 10 : 5: 35
```

```
>> X=
```

```
1 2 3 4 10 15 20 25 30 35
```

EX: Define vector y with 3 elements. Assign a value to the 8th element.

```
y = [1 2 3] ;
```

```
y(8)= 10
```

```
>> y=
```

```
1 2 3 0 0 0 0 10      % MATLAB assigns zeros to the 4th through 7th elements.
```

- **DELETING ELEMENTS**

- by using square brackets with nothing typed in between them → a=[]

EX: v= [1 3 5 6 7 2] ;

```
v(4)=[ ]
```

```
>> v = 1 3 5 7 2
```

- **Addition and Subtraction of Vectors**

- You can add or subtract two vectors. Both the operand vectors must be of same type and have same number of elements.

EX:

A = [7, 11, 15, 23, 9];

B = [2, 5, 13, 16, 20];

C = A + B;

D = A - B;

disp(C) ;

disp(D) ;

```
>>  9  16  28  39  29
      5   6   2   7 -11
```

- **Scalar Multiplication of vectors**

Scalar multiplication produces a new vector of same type with each element of the original vector multiplied by the number.

EX:

v = [12 34 10 8] ;

m = 5 * v

>>

```
m =  60 170  50  40
```