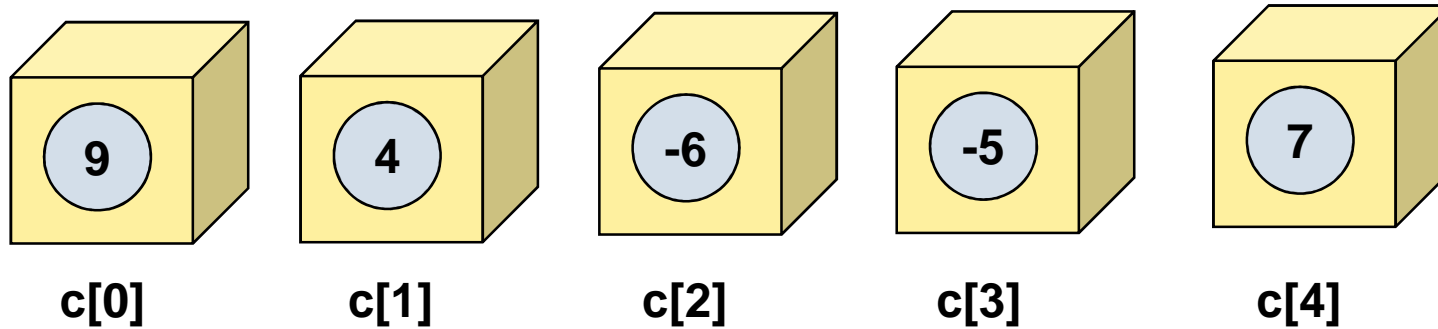


# Arrays





# Deklaration von Arrays



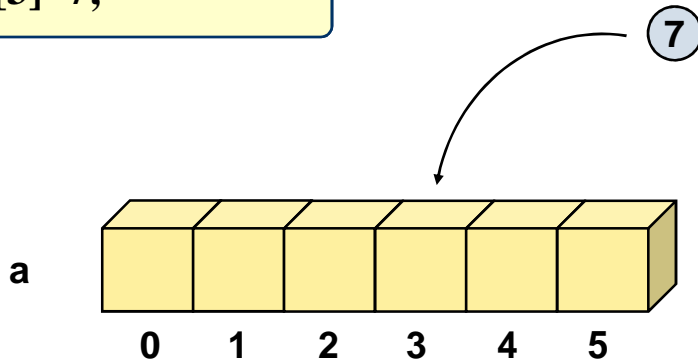
```
int c[] = new int[ 5 ];
```

```
int c[];  
c = new int[ 5];
```

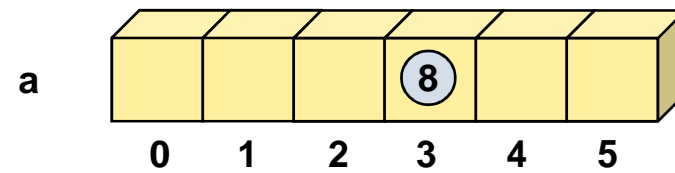
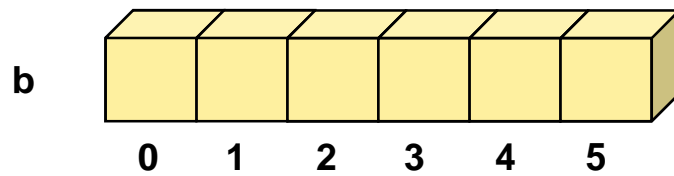


# Zuweisung von Werten zu Array-El.

```
a[3]=7;
```



```
b[2]=a[3];
```





# Einführendes Beispiele I

```
int c[];  
c = new int[ 4 ];  
  
c[0]=2;  
c[1]=4;  
c[2]=6;  
c[3]=8;  
System.out.println( "Index   Wert" );  
for ( int i = 0; i < c.length; i++ )  
    System.out.println( i+" "+ c[i] );
```



# Einführende Beispiele II

```
int c[] = {2,4,6,8};  
System.out.println( "Index   Wert" );  
for ( int i = 0; i < c.length; i++ )  
    System.out.println( i+" "+ c[i] );
```



# Einführende Beispiele III

```
int c[] =new int[ 4 ];  
  
for ( int i = 0; i < c.length; i++ )  
    c[i]=2*i+5;  
  
System.out.println( "Index   Wert" );  
for ( int i = 0; i < c.length; i++ )  
    System.out.println( i+" "+ c[i] );
```



# Einführende Beispiele IVa

```
// Hauptprogramm
public static void main( String args[] )
{
    int c[] = { 1, 2, 3, 4, 5 };
    // Ausgabe
    for (int i=0;i<c.length;i++)
        System.out.printf( "  %d", c[i]);

    modifyArray(c); // pass c als Referenz
    System.out.println( "Die neuen Werte sind:" );
    // 2. Ausgabe
    for ( int i=0;i<c.length;i++)
        System.out.print ( " "+ c[i] );

    System.out.println("c[3] vor modifyElement:"+ c[ 3 ] );
    modifyElement( c[ 3 ] ); // Versuch c[ 3 ] zu ändern: Übergabe als Wert!
    System.out.println("c[3] nach modifyElement: "+ c[ 3 ] );
} // end main
```



# Einführende Beispiele IVb

```
// Verdoppelt jedes Arrayelement  
public static void modifyArray( int c2[] )  
{  
    for ( int counter = 0; counter < c2.length; counter++ )  
        c2[ counter ] *= 2;  
} // ende von modifyArray  
  
// Verdoppelt das Argument  
public static void modifyElement( int element )  
{  
    element *= 2;  
    System.out.printf(  
        "Wert des Elementes in modifyElement:", element );  
} // ende von modifyElement
```