

```
package ap_3;
import java.util.Arrays;
public class ExponentialSearch {
    public static void main(String[] args){
        int[] arr = {9,18,27,36,45};
        int length= arr.length;
        int value = 36;
        int result = exponentialSearch(arr,length,value);
        if(result<0){
            System.out.println( "Element is not present in the Array");
        }else {
            System.out.println( "Element is present in the array at index :"+result);
        }
    }
    public static int exponentialSearch(int[] arr ,int length, int value ){
        if(arr[0]==value){
            return 0;
        }
        int i=1;
        while(i<length && arr[i]<=value){
            i=i*2;
        }
        return Arrays.binarySearch(arr,i/2,Math.min(i,length),value);
    }
}
```

