

```
#!/bin/bash

# Check and display element is ODD or EVEN in array

echo "Enter no of elements"
read n
i=0
echo "Enter the Elements"
while [ $i -lt $n ]
do
    read arr[$i]
    i=`expr $i + 1`
done
echo "Array Elements:"
for i in "${arr[@]}"
do
    echo "$i "
done

for i in "${arr[@]}"
do
    remainder=`expr $i % 2`
    if [ $remainder == 0 ]
    then
        echo "$i is EVEN"
    else
        echo "$i is ODD"
    fi
done
```

<<OUTPUT

```
mayuri@mayuri-VirtualBox:~/shellPrograms$ ./checkEvenOdd.sh
Enter no of elements
5
Enter the Elements
22
33
44
55
66
Array Elements:
22
33
44
55
66
22 is EVEN
33 is ODD
44 is EVEN
55 is ODD
66 is EVEN
mayuri@mayuri-VirtualBox:~/shellPrograms$
```

OUTPUT

```
#!/bin/bash
```

```
num_array=(11 22 33 44 55 66 77 88 99 110)
echo "First Element: ${num_array[0]}"
echo "Second Element: ${num_array[1]}"
echo "third Element: ${num_array[2]}"
echo "fourth Element: ${num_array[3]}"
sum4=`echo "${num_array[0]} + ${num_array[1]} + ${num_array[2]} + ${num_array[3]}" | bc`
echo "Sum of first four elements: $sum4"
echo "All Elements: ${num_array[*]}"
echo "All Elements: ${num_array[@]}"
echo "All Elements: ${num_array[@]:2}"
echo "All Elements: ${num_array[@]:2:5}"
```

```
###OUTPUT#####
```

```
#mayuri@mayuri-VirtualBox:~/shellPrograms$ ./arrays.sh
```

```
#First Element: 11
```

```
#Second Element: 22
```

```
#third Element: 33
```

```
#fourth Element: 44
```

```
#Sum of first four elements: 110
```

```
#All Elements: 11 22 33 44 55 66 77 88 99 110
```

```
#All Elements: 11 22 33 44 55 66 77 88 99 110
```

```
#All Elements: 33 44 55 66 77 88 99 110
```

```
#All Elements: 33 44 55 66 77
```

```
#mayuri@mayuri-VirtualBox:~/shellPrograms
```

```
#!/bin/bash
```

```
read -p "Enter First Number:" n1
read -p "Enter Second Number:" n2

sum=`expr $n1 + $n2`
diff=`expr $n1 - $n2`
mul=`expr $n1 \* $n2`
#div=`expr $n1 / $n2`
div=`echo "scale=2;$n1/$n2" | bc`
modulo=`expr $n1 % $n2`

echo "sum=$sum, difference=$diff, multiply=$mul, division=$div, mod=$modulo"
echo "scale=2; 20 / 6" | bc
```

```
#!/bin/bash
```

```
#sum of elements in an array
```

```
arr1=(11 12 13 14 15 16 17 18 19 20)
sum1=0
i=0
while [ $i -lt 10 ]
do
    sum1=`expr $sum1 + ${arr1[$i]}`
    i=`expr $i + 1`
done
echo "IN WHILE LOOP, SUM = $sum1"
sum2=0
for j in ${arr1[@]}
do
    sum2=`expr $sum2 + $j`
done
echo "IN FOR LOOP, Sum= $sum2"
```

```
#####OUTPUT#####
```

```
#mayuri@mayuri-VirtualBox:~/shellPrograms$ ./sum_array.sh
#IN WHILE LOOP, SUM = 155

#IN FOR LOOP, Sum= 155
#mayuri@mayuri-VirtualBox:~/shellPrograms$
```