

EXP NO:8

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AIM:-

Write a shell script to find the average of the numbers entered in command line (use 'for').

- **For loop**

The **for** loop operates on lists of items. It repeats a set of commands for every item in a list.

Syntax:

```
for var in word1 word2 ... wordn
```

```
do
```

```
    Statement(s) to be executed for every word.
```

```
Done
```

- **bc command**

bc command is used for command line calculator. It is similar to basic calculator by using which we can do basic mathematical calculations.

Arithmetic operations are the most basic in any kind of programming language. Linux or Unix operating system provides the bc command and expr command for doing arithmetic calculations. You can use these commands in bash or shell script also for evaluating arithmetic expressions.

Syntax:

```
bc [ -hlwsqv ] [long-options] [ file ... ]
```

```
variable=$(echo "option ;expression" | bc )
```

Options:

- h, { - -help } : Print the usage and exit
- i, { - -interactive } : Force interactive mode
- l, { - -mathlib } : Define the standard math library
- w, { - -warn } : Give warnings for extensions to POSIX bc
- s, { - -standard } : Process exactly the POSIX bc language
- q, { - -quiet } : Do not print the normal GNU bc welcome
- v, { - -version } : Print the version number and copyright and quit

OUTPUT



```
1 echo "FIND AVERAGE"
2 ch="y"
3 while [ $ch = "y" ]
4 do
5 echo "enter limit"
6 read n
7 echo "enter nos"
8 sum=0.0
9 for((i=0;i<n;i++))
10 do
11 read m
12 sum=`echo $sum + $m | bc`
13 done
14
15 avg=`echo "scale=2; $sum / $n" | bc`
16 echo "average is $avg"
17 echo "Do you want to continue?y/n"
18 read ch
19 done
20 exit
```

```
average is 6.66
anagha@anagha-da:~$ bash average.sh
FIND AVERAGE
enter limit
3
enter nos
5
7
8
average is 6.66
Do you want to continue?y/n
y
enter limit
4
enter nos
5
6
7
8
average is 6.50
Do you want to continue?y/n
n
anagha@anagha-da:~$
```