

Experiment No 4

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Roll No: 56

Scientific Calculator Using Shell Scripting

Program:

```
#!/bin/bash
echo "Note:"
echo "sqrt(x) = square root"
echo "s(x) = sin(x)"
echo "c(x) = cos(x)"
echo "l(x) = ln(x)"
echo "e(x) = exponential"
while true
do
    echo -n "Input: "
    read expr
    echo -n "Result:"
    echo $expr | bc -l
    echo -n "wish to continue (y/n):"
    read op
    if [ $op == 'n' ]
    then
        break
    fi
done
```

Output:

```

rino2002@rino2002-Ubuntu: ~/Desktop/Shell Scripting
rino2002@rino2002-Ubuntu:~/Desktop/Shell Scripting$ ./scientific-calculator.sh
Note:
sqrt(x) = square root
s(x) = sin(x)
c(x) = cos(x)
l(x) = ln(x)
e(x) = exponential
Input: 34+2-10
Result:26
wish to continue (y/n):y
Input: sqrt(225)
Result:15.000000000000000000000000
wish to continue (y/n):y
Input: c(60)
Result:-.95241298041515629269
wish to continue (y/n):y
Input: s(30)
Result:-.98803162409286178998
wish to continue (y/n):y
Input: l(5)
Result:1.60943791243410037460
wish to continue (y/n):y
Input: e(9)
Result:8103.08392757538400770999
wish to continue (y/n):y
Input: 2+1*9-10
Result:1
wish to continue (y/n):y
Input: 8/2*2
Result:8.000000000000000000000000
wish to continue (y/n):|

```