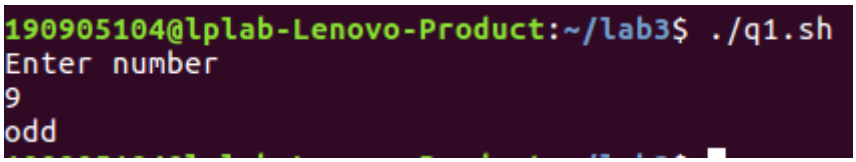
Week 3

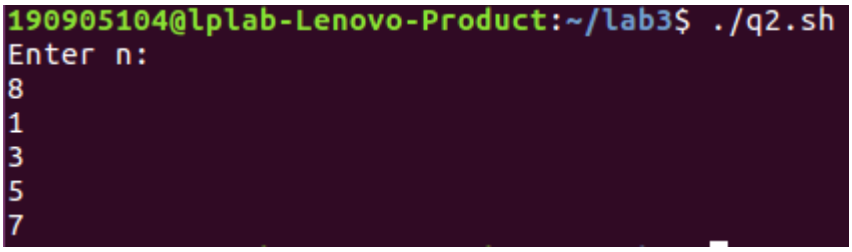
1)

```
echo "Enter number"
read n
no=`expr \( $n \% 2 \)`
if [ $no -eq 0 ]
then
echo "even"
else
echo "odd"
fi
```



2)

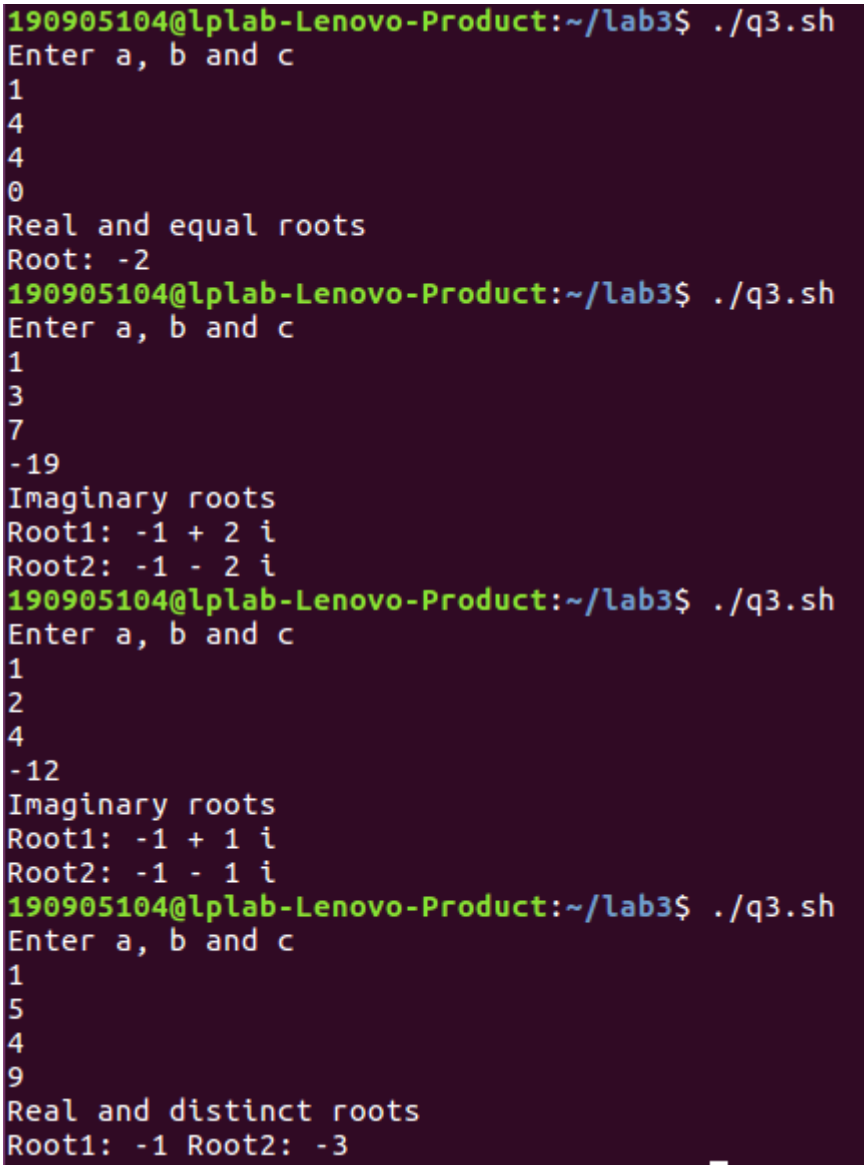
```
echo "Enter n:"
read n
i=1
while test $i -le $n
do
no=`expr \( $i \% 2 \)`
if [ $no != 0 ]
then
echo $i
fi
i=`expr \( $i + 1 \)`
done
```



3)

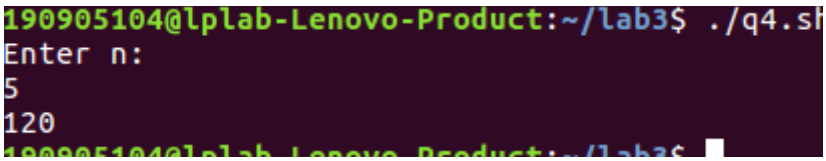
```
echo "Enter a, b and c"
read a
read b
read c
d=`expr $b \* $b - 4 \* $a \* $c`
echo $d

if [ $d -gt 0 ]
then
```

```
q="r"
echo "Real and distinct roots"
elif [ $d -lt 0 ]
then
q="i"
echo "Imaginary roots"
else
echo "Real and equal roots"
q="e"
fi
case $q in
"r")
d=`echo "scale=4; sqrt($d)" | bc`
s1=`echo "(-1*$b)/(2*$a)" | bc`
s2=`echo "($d)/(2*$a)" | bc`
r1=`echo "($s1+$s2)" | bc`
r2=`echo "($s1-$s2)" | bc`
echo "Root1: $r1 Root2: $r2"
;;
"e")
d=`echo "scale=4; sqrt($d)" | bc`
s1=`echo "(-1*$b)/(2*$a)" | bc`
s2=`echo "($d)/(2*$a)" | bc`
r1=`echo "($s1+$s2)" | bc`
echo "Root: $r1"
;;
"i")
d=`echo "-1*$d" |bc`
d=`echo "scale=4; sqrt($d)" | bc`
s1=`echo "(-1*$b)/(2*$a)" | bc`
s2=`echo "($d)/(2*$a)" | bc`
echo "Root1: $s1 + $s2 i"
echo "Root2: $s1 - $s2 i"
;;
esac
```



4)

```
echo "Enter n:"
read n
p=1
i=1
while [ $i -le $n ]
do
p=`expr \( $p \* $i \)`
i=$((i+1))
done
echo $p
```


190905104@lplab-Lenovo-Product:~/lab3$ ./q4.sh
Enter n:
5
120