1) Write a shell script to find greatest among 3 numbers

Source Code

```
echo "Enter 3 numbers:"
read a b c
if [ "$a" -ge "$b" ] && ["$a" -ge "$c"]; then
    max=$a
elif ["$b" -ge "$a"] && ["$b" -ge "$c"]; then
    max=$b
else
    max=$c
fi
echo "The greatest number is: $max"
```

Output

```
Enter 3 numbers:
1 4 5
The greatest number is: 5
```

2) Write a shell script to check even or odd.

Source Code

```
echo "Enter a number"
read a
a=`expr $a % 2`
if [ $a -eq 0 ]
then
    echo "$a is even"
else
    echo "$a is odd"
fi
```

Output

①
```
Enter a number
4
4 is even
```

②
```
Enter a number
5
5 is odd
```

3) Write a shell script to perform swap between 2 variables.

Source Code

```
echo "Enter a"
read a
echo "Enter b"
read b
echo "Before Swapping"
echo "a = $a"
echo "b = $b"
a = `expr $a + $b`
b = `expr $a - $b`
a = `expr $a - $b`
echo "After Swapping"
echo "a = $a"
echo "b = $b"
```

Output

```
Enter a
4
Enter b
5
Before Swapping
a=4
b=5
After Swapping
a=5
b=4
```

4) Write a shell script to find factorial of a number.

Source Code

```
echo "Enter a number"
read a
f=1
for((i=1; i<=$a; i++))
do
   f=`expr $f "*" $i`
done
echo "factorial: $f"
```

Output

```
Enter a number
5
factorial: 120
```

5) Write a shell script to calculate GCD between 2 numbers.

Source Code

```
echo "Enter two numbers"
read a b
while [$a -ne $b]
do
  if [$a -gt $b]
  then
    a=`expr $a -$b`
  else
    b= `expr $b- $a`
  fi
done
echo "GCD: $a"
```

Output

```
Enter two numbers
5 15
GCD: 5
```

6) Write a shell script to calculate LCM between 2 numbers.

Source Code

```
echo "Enter two numbers"
read a b
x= $a
y= $b
while [ $a -ne $b ]
do if [ $a -lt $b ]
  then
    a= `expr $a+ $x`
  else
    b= `expr $b+ $y`
  fi
done
echo "LCM: $a"
```

Output

```
Enter two numbers
5 15
LCM: 15
```