SHELL SCRIPTING

Problem 1 :

Find the reverse of a given number

```
#!/bin/bash

echo "Input a number :"
read num

n=$num
rev=0
while [ $num -gt 0 ]
do
    rem=`expr $num % 10`
    re=`expr $rev \* 10`
    rev=`expr $re + $rem`
    num=`expr $num / 10`
done

echo "Reverse is $rev"
```

Using function :

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

```
echo "Input a number :"
read num


Reverse()
{
n=$num
rev=0
while [ $num -gt 0 ]
do
   rem=`expr $num % 10`
   re=`expr $rev \* 10`
   rev=`expr $re + $rem`
   num=`expr $num / 10`
done

echo "Reverse is $rev"
}

Reverse $num
```

Output:

```
Input a number : 12345
Reverse is 54321
```

Problem 2 :

Check whether a given number is palindrome or not

```
#!/bin/bash
echo "Input a number :"
read num
n=$num
rev=0
while [ $num -gt 0 ]
do
    rem=`expr $num % 10`
    re=`expr $rev \* 10`
    rev=`expr $re + $rem`
    num=`expr $num / 10`
done

if [ $n -eq $rev ]
then
    echo "$n is palindrome"
else
    echo "$n is not palindrome"
fi
```

Output:

```
Input a number : 121
121 is palindrome
```

Problem 3 :

Find the reverse of a given string

```
#!/bin/bash
echo "Enter the string to be reversed : "
read str
 l=${#str}
echo "$l"

for (( i=$l-1; i>=0 ; i-- ))
do
     rev="$rev${str:$i:1}"    # Concatenation
done

echo "Reverse of $str is $rev"
```

Output:

```
Enter the string to be reversed:
abcdef

Reverse of abcdef is fedcba
```

Problem 4 :

Print odd numbers between 1 and 100

```
#!/bin/bash

n=1
while [ $n -lt 100 ]
do
   # rem=`expr $n % 2 `
    if [ `expr $n % 2 ` -ne 0 ]
    then
        echo $n
    fi
    n=`expr $n + 1 `
done
```

Output:

```
1
3
5
7
9
11
13
.
.
99
```