

Shell Scripting

1.

```
#!/bin/sh

echo '1. Addition, 2. Subtraction, 3. Multiplication, 4. Division, 5. Average'
echo 'Pick one out of the above choices: '
read n
echo 'Enter 2 numbers'
read a
read b
if [ $n -eq 1 ]
then
d=`expr $a + $b`
elif [ $n -eq 2 ]
then
d=`expr $a - $b`
elif [ $n -eq 3 ]
then
d=`expr $a \* $b`
elif [ $n -eq 4 ]
then
d=`expr $a / $b`
elif [ $n -eq 5 ]
then
sum=`expr $a + $b`
d=`expr $sum / 2`
fi
echo "$d"
```

2.

```
echo "Enter the string to be encoded/decoded"
read str
echo "Enter choice"
echo "1: ROT13 Encode 2: ROT13 Decode"
read choice
case $choice in
1) echo $str | tr 'A-Za-z' 'N-ZA-Mn-za-m'
;;
2) echo $str | tr 'A-Za-z' 'N-ZA-Mn-za-m'
;;
*) echo "Invalid choice"
;;
esac
```

4.

```
echo "Enter the number of elements in the array"
read n
echo "Enter the elements of the array"
for((i=0;i<n;i++))
do
read a[$i]
done
for((i=0;i<n;i++))
do
for((j=0;j<n-i-1;j++))
do
if [ ${a[$j]} -gt ${a[$j+1]} ]
then
temp=${a[$j]}
a[$j]=${a[$j+1]}
a[$j+1]=$temp
fi
done
done
echo "The sorted array is"
for((i=0;i<n;i++))
do
echo ${a[$i]}
done
```

5.

```
echo "Enter a number"
read num
temp=$num
rev=0
while [ $num -gt 0 ]
do
    rem=`expr $num % 10`
    rev=`expr $rev \* 10 + $rem`
    num=`expr $num / 10`
done
if [ $temp -eq $rev ]
then
    echo "The number is a palindrome"
else
    echo "The number is not a palindrome"
```