

**1)**

```
echo "Enter a number "  
read a  
if [ $a -a 1 -eq 1 ]  
then  
echo "Odd"  
else  
echo "Even"  
fi
```

**2)**

```
read a  
read b  
if [ $a -gt $b ]  
then  
echo "$a is greater"  
elif [ $b -gt $a ]  
then  
echo "$b is greater"  
else  
echo "Cannot determine"  
fi
```

**3)**

```
echo "Enter three numbers"  
read a  
read b  
read c  
if [ $a -le $b ] && [ $a -le $b ]  
then  
echo " $a is smallest "  
elif [ $b -le $a ] && [ $b -le $c ]  
then  
echo " $b is smallest "  
else  
echo " $c is smallest "  
fi
```

**4)**

```
echo "Enter three numbers "  
read a  
read b  
read c  
if [ $a -ge $b ] && [ $a -ge $c ]  
then  
if [ $b -ge $c ]  
then  
echo " $b is 2nd largest"  
else
```

```

echo " $c is 2nd largest"
fi
elif [ $b -ge $a ] && [ $b -ge $c ]
then
if [ $a ge $c ]
then
echo " $a is 2nd largest"
else
echo " $c is 2nd largest"
fi
elif [ $a -ge $b ]
then
echo " $a is 2nd largest"
else
echo " $b is 2nd largest"
fi

```

**5)**

```

echo "Enter Year"
read a
if [ `expr $a % 400` -eq 0 ]
then
echo "Leap year"
elif [ `expr $a % 100` -eq 0 ]
then
echo "Not leap year"
elif [ `expr $a % 4` -eq 0 ]
then
echo "Leap Year"
else
echo "Not a leap year"
fi

```

**6)**

```

read a
read b
read c
if [ `expr $a \* $a + $b \* $b` -eq `expr $c \* $c` ]
then
echo "it is a triangle"
area=`expr $a \* $b`
echo "area = "`expr $area / 2`
elif [ `expr $b \* $b + $c \* $c` -eq `expr $a \* $a` ]
then
echo "it is a triangle"
area=`expr $b \* $c`
echo "area = "`expr $area / 2`
elif [ `expr $c \* $c + $a \* $a` -eq `expr $b \* $b` ]
then
echo "it is a triangle"
area=`expr $c \* $a`

```

```
echo "area = "`expr $area / 2`  
else  
echo "not a triangle"  
fi
```

**7)**

```
echo "Enter Two Numbers"  
read a b  
echo "What do you want to do? (1 to 5)"  
echo "1) Sum"  
echo "2) Difference"  
echo "3) Product"  
echo "4) Quotient"  
echo "5) Remainder"  
read c  
case "$c" in  
1) echo "The Sum of $a and $b is `expr $a + $b`";;  
2) echo "The Difference between $a and $b is `expr $a - $b`";;  
3) echo "The Product of the $a and $b is `expr $a \* $b`";;  
4) echo "The Quotient of $a by $b is `expr $a / $b`";;  
5) echo "The Remainder of $a by $b is `expr $a % $b`";;  
*) echo "Wrong choice";;  
esac
```

**8)**

```
echo "Enter marks in three subject "  
read a  
read b  
read c  
sum=`expr $a + $b + $c`  
avg=`expr $sum / 3`  
ans=`expr $avg / 10`  
case "$ans" in  
10) echo "O grade";;  
9) echo "O grade";;  
8) echo "A grade";;  
7) echo "B grade";;  
6) echo "C grade";;  
5) echo "D grade";;  
4) echo "E grade";;  
*) echo "F grade";;  
esac
```

**9)**

```
echo "Enter a character "  
read a  
case $a in  
[a-z]) echo "Small letter";;  
[A-Z]) echo "Capital letter";;
```

```
[0-9]) echo "digit";;  
*) echo "Special character";;  
esac
```

## 10)

```
echo "1.) Circle 2.)Square 3.)Rectangle "  
read a  
case "$a" in  
1) echo "Enter radius"  
read r  
echo "3.14 * $r * $r" | bc;;  
2) echo "Enter Side"  
read s  
echo `expr $s \* $s`;;  
3) echo "Enter length"  
echo "Enter breadth"  
read l  
read b  
echo `expr $l \* $b`;;  
*) echo "Wrong"  
esac
```