1.

```
#! /bin/bash
read -p "Enter the name : " name
if [ -f $name ]
then
        echo "This is a file "
elif [ -d $name ]
then
        echo "This is a directory "
else
        echo " This is not a file or a directory "
fi
```

2.

```
#! /bin/bash
read -p "Enter a:: " basic
if [ $basic -lt 1500 ]
then
        let hra=($basic*10)/100
        let da=($basic*90)/100
else
        hra=500
        let da=($basic*98)/100
fi

let gross=$basic+$da+$hra
echo $gross
```

3.

```
#! /bin/bash
read -p "Enter first number :" a
read -p "Enter the power : " b
let pow=$a**$b
echo "The square is : $pow
```

4.

```
#! /bin/bash
 read -p "Enter the name of the first file : " a
read -p "Enter the name of the second file : " b
c=$(cat $a)
d=$(cat $b)
if [ "$c" == "$d" ]
then
        rm -f $b
        echo "The second file is deleted "
else
        echo "The two files are different"
fi
```

5.

```
#! /bin/bash
ch=0
until [ $ch -eq 6 ]
do
        echo -e "1. Addition \n2. Subtraction \n3. Multiplication \n4. Division \n5. Modulus \n6.
Exit"

        read -p "Enter choice:: " ch
        case $ch in
                1) read -p "Enter first number:: " n1
                read -p "Enter second number:: " n2
                        let result=$n1+$n2
                        echo "$n1 + $n2 = $result";;

                2) read -p "Enter first number:: " n1
                 read -p "Enter second number:: " n2
                        let result=$n1-$n2
                        echo "$n1 - $n2 = $result";;

                3) read -p "Enter first number:: " n1
                read -p "Enter second number:: " n2
                        let result=$n1*$n2
                        echo "$n1 * $n2 = $result";;

                4) read -p "Enter first number:: " n1
                read -p "Enter second number:: " n2
                        let result=$n1/$n2
                        echo "$n1 / $n2 = $result";;

                5) read -p "Enter first number:: " n1
                read -p "Enter second number:: " n2
                        let result=$n1%$n2
                        echo "$n1 % $n2 = $result";;

                6) ;;

                *) echo "Invalid input"
        esac
 done
```