1. Obtain the system time, and check whether it is in the morning, afternoon, or evening.

```
#!/bin/bash
hour=`date +%H`
case $hour in
0[1-9] | 1[01] )
echo "Good morning !!"
;;
1[234567] )
echo "Good afternoon !!"
;;
* )
echo "Good evening !! "
;;
esac
```

```
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ chmod +x exp1.sh
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ ./exp1.sh
Good morning !!
```

2. Input two number, check which one is greater, and output the result.

```
#!/bin/sh
echo "Enter the first integer:"
read first
echo "Enter the second integer:"
read second
if [ "$first" -gt "$second" ]
 then
 echo "$first is greater than $second"
 elif [ "$first" -lt "$second" ]
then
 echo "$first is less than $second"
else
 echo "$first is equal to $second"
fi
```

```
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ chmod +x exp2.sh
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ ./exp2.sh
Enter the first integer:
1
Enter the second integer:
5
1 is less than 5
```

3. Find the minimal value in a given list.

```
#!/bin/bash
smallest=10000
for i in 8 2 18 0 -3 87
do
if test $i -lt $smallest
then
 smallest=$i
fi
done
 echo $smallest
```

```
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ touch exp3.sh
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ chmod +x exp3.sh
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ ./exp3.sh
-3
```

4. Calculate the number of executive file in the current directory.

```
 #!/bin/bash
count=0
for i in *
 do
if test -x $i
then
 count=`expr $count + 1`
 fi
done
echo Total of $count files executable
```

```
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ touch exp4.sh
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ chmod +x exp4.sh
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ ./exp4.sh
Total of 4 files executable
```

5. Check whether a given number is a prime, you have to write a function, and call the function.

```
prime( )
{
 flag=1
 j=2
 while [ $j -le `expr $1 / 2` ]
 do
 if [ `expr $1 % $j` -eq 0 ]
 then
 flag=0
 break
 fi
 j=`expr $j + 1`
 done
 if [ $flag -eq 1 ]
 then
 return 1
 else
 return 0
 fi
}
prime $1
if [ $? -eq 1 ]
 then
 echo "$1 is a prime!"
 else
 echo "$1 is not a prime!"
fi
```

```
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ chmod +x exp5.sh
pengyupeng@pengyupeng-virtual-machine:~/B22040722$ ./exp5.sh 17
17 is a prime!
```