1. $ cp hello.sh sum.sh
   $ nano sum.sh
   $ ./sum.sh 2 4
   $ ./sum.sh 2 4 6

```
#!/bin/bash
#check if number of arguments is 2, if not - print warning, if yes - proceed
if [ $# -ne 2 ]
then
  echo "Execution: $0   x    y"
  echo "Where x and y are two integers for which sum will be calculated"
else
  sum=`expr $1 + $2 `
  echo "Sum of $1 and $2 is $sum "
fi
```

2. $ cp hello.sh biggest.sh
   $ nano biggest.sh
   $ ./biggest.sh 5 8 2

```
#!/bin/bash
num1=$1
num2=$2
num3=$3
if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
then
    echo "$num1 is biggest number"
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
then
     echo "$num2 is biggest number"
elif [ $num3 -gt $num1 ] && [ $num3 -gt $num2 ]
then
  echo "$num3 is biggest number"
fi
```

3. $ cp biggest.sh biggest1.sh
   $ nano biggest1.sh
   $ ./biggest.sh 5 8
   $ ./biggest.sh 5 8 2

```
#!/bin/bash
if [ $# -ne 3 ]
then
 echo "Use $0: number1 number2 number3 "
else
 num1=$1
 num2=$2
 num3=$3
```

```
 if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
 then
      echo "$num1 is biggest number"
 elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
 then
      echo "$num2 is biggest number"
 elif [ $num3 -gt $num1 ] && [ $num3 -gt $num2 ]
 then
   echo "$num3 is biggest number"
 fi
fi
```

4. $ cp biggest1.sh biggest2.sh
   $ nano biggest2.sh
   $ ./biggest2.sh 2 2 2
   $ ./biggest2.sh a b c

```
#!/bin/bash
if [ $# -ne 3 ]
then
 echo "Use $0: number1 number2 number3 "
else
 num1=$1
 num2=$2
 num3=$3
 if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
 then
      echo "$num1 is biggest number"
 elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
 then
      echo "$num2 is biggest number"
 elif [ $num3 -gt $num1 ] && [ $num3 -gt $num2 ]
 then
   echo "$num3 is biggest number"
#what if you give the same number 3 times???
 elif [ $1 -eq $2 ] && [ $1 -eq $3 ] && [ $2 -eq $3 ]
 then
      echo "All the three numbers are equal"
#what if 3 arguments that are not really numbers???
 else
 echo "I can not figure out which number is bigger"
 fi
fi
```

5. $ cp hello.sh math-operations.sh
   $ nano math-operations.sh
   $ ./math-operations.sh 2 + 3

$./math-operations.sh 4 - 2
$ ./math-operations.sh 10 x 2
$ ./math-operations.sh 10 / 2
But be careful
$ ./math-operations.sh 10 / 3
$ ./math-operations.sh 10 v 2
$ ./math-operations.sh 10 + 2 - 4

```
#!/bin/bash
#check if all the arguments are provided: 2 numbers and operation
if test $# = 3
then
      case $2 in
       #sum
       +) let result=$1+$3;;
       #subtract
       -) let result=$1-$3;;
       #multiply
       #case insensitive
       x|X) let result=$1*$3;;
       #divide
       /) let result=$1/$3;;
       #unknown operator
       *) echo Warning - $2 invalid operator, only +,-,x,/ operator allowed
          exit;;
      esac
      echo $1 $2 $3 = $result
else
      echo "Syntax: $0   value1  operator value2"
      echo "where, value1 and value2 are numeric values"
      echo "operator can be +,-,x,/"
fi
```