a) Write a shell script which adds up 10 numbers entered by the user and displays the result to the screen. You must use the “read” command to obtain the numbers from the user. (4 marks)

#!/bin/sh

function judge(){

str="([1-9]+[0-9]\*|0)(\\.[\\d]+)?"

if [[ $1 =~ $str ]];then

return 1

else return 0

fi

}

int=1

sum=0

while [ $int -le 10 ]

do

echo "please enter a number"

read j

judge $j

result=$?

case $result in

1) sum=`expr $sum + $j`

let "int++"

;;

0) echo "onle support Number!"

;;

esac

done

echo "the total is :" $sum

b) Alter the script you wrote in part a) of this question so that it works for an arbitrary list of numbers. Again, you must use the “read” command to obtain all input from the user.

#!/bin/sh

function judge(){

str="([1-9]+[0-9]\*|0)(\\.[\\d]+)?"

if [[ $1 =~ $str ]];then

return 1

else return 0

fi

}

int=1

sum=0

while [ 1 ]

do

echo "input a number;"

read j

judge $j

result=$?

case $result in

1) sum=`expr $sum + $j`

let "int++"

;;

0) echo the `expr $int - 1` number add to is :$sum

break

;;

esac

done

c) Write a script which takes in a number from the user and prints out the corresponding day of the week, e.g. Monday for 1 and Sunday for 7. Try, if you can, to make sure the program doesn’t crash if the user enters something unexpected

#!/bin/sh

i=0

echo "please enter a number >"

read n

case $n in

1)

echo "monday"

;;

2)

echo "tuesday"

;;

3)

echo "wednesday"

;;

4)

echo "thurday"

;;

5)

echo "friday"

;;

6)

echo "saturday"

;;

7)

echo "sunday"

;;

\*)

echo "input wrong, the range of number is 1-7"

;;

esac

d) Write a script which makes a new directory called “MyTextFiles”, copies all text files (i.e. those ending in “.txt” – you can ignore any permutations such as “.TXT”) from the current directory to this new directory, produces a list of files within that directory redirected to a new file called “DirectoryListing.txt” and displays on the screen the number of lines in the file, “DirectoryListing.txt”.

#!/bin/sh

path="/homenfs/all/b7055877/MyTextFiles"

newFile="/homenfs/all/b7055877/MyTextFiles/DirectoryListing.txt"

if [ -d $path ];then

rm -rf $path

fi

mkdir $path

filelist=`ls \*.txt`

for file in $filelist

do

cp -rf /homenfs/all/b7055877/\*.txt /homenfs/all/b7055877/MyTextFiles

echo $file>>$newFile

done

echo "$newFile directory count Line is:"

cat $newFile | wc -l

e) Write a shell script which looks at the contents of the current directory and for all directories prints out the word “Directory” followed by the name of the directory and a comma-separated list of the directory’s contents and for all files prints out the word “File” and the name of the file

#!/bin/sh

function walk(){

file=$1

if [ -d $file ];then

echo "Directory $file,"

else

echo "File $file"

fi

}

function getdir(){

path=$1

cd $path

filelist=`ls`

for file in $filelist

do

walk $file

cd ../

done

}

getdir echo $(pwd)