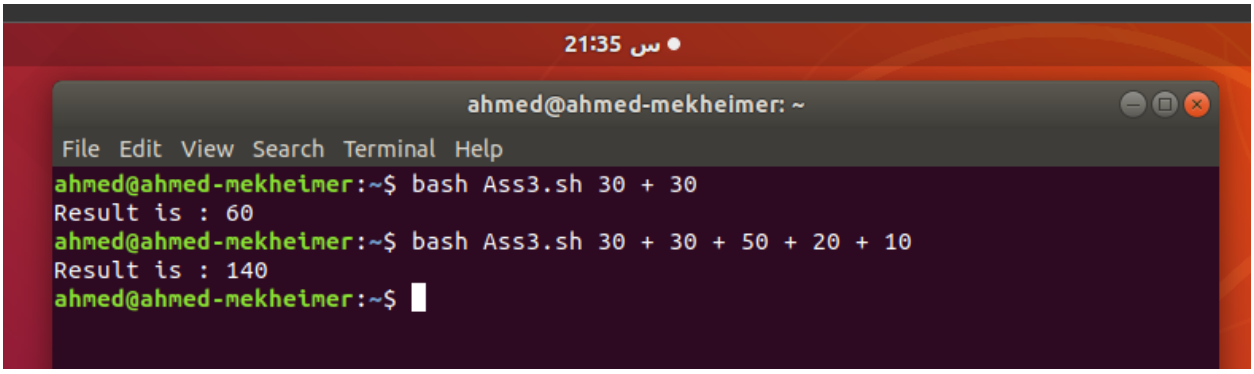
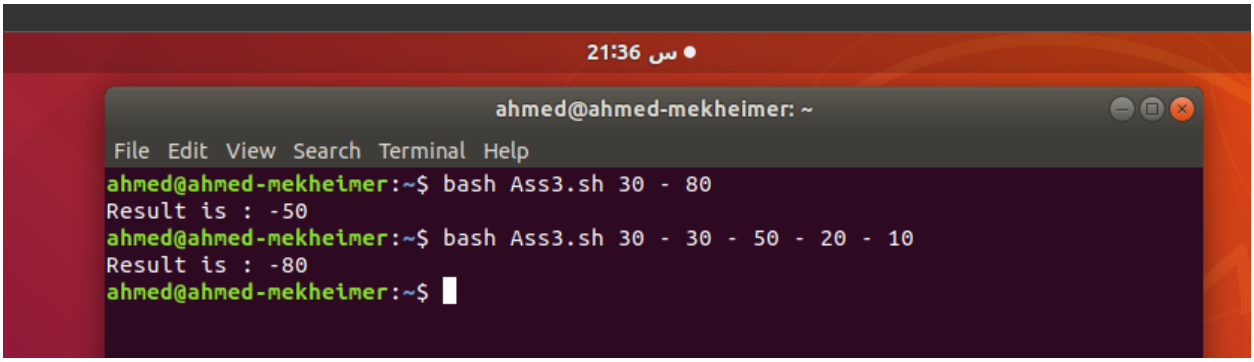
Ass 3

Test Cases:

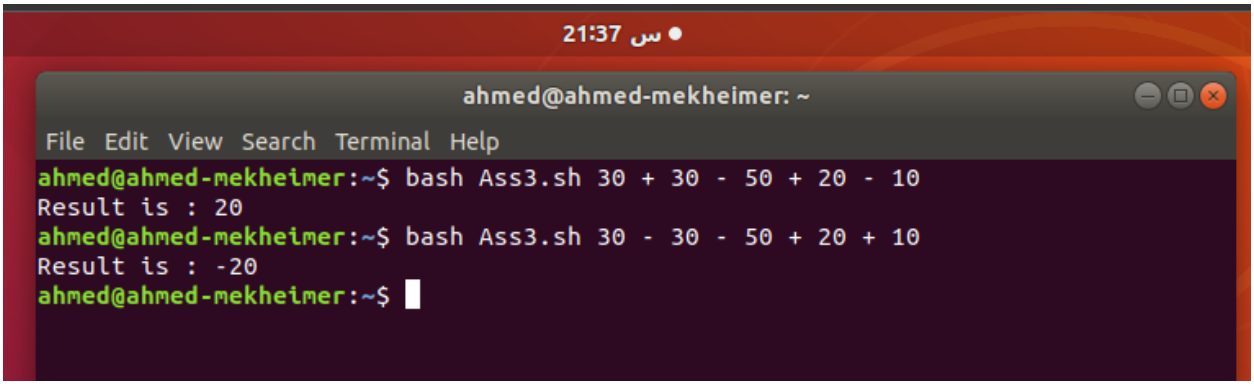
Addition

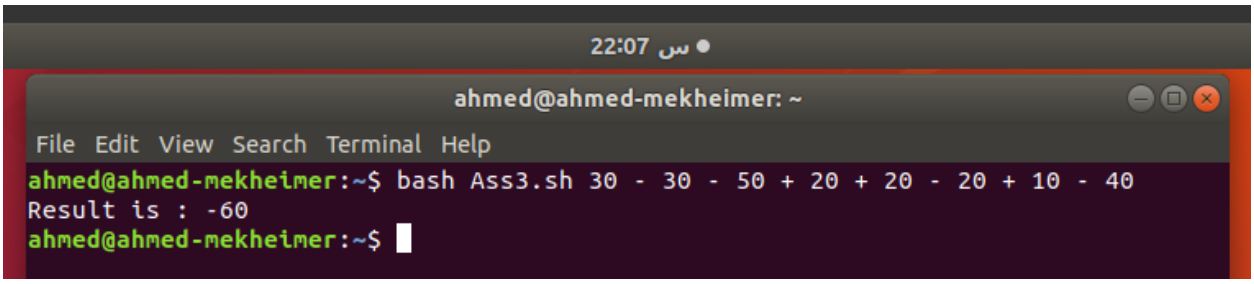


Subtraction

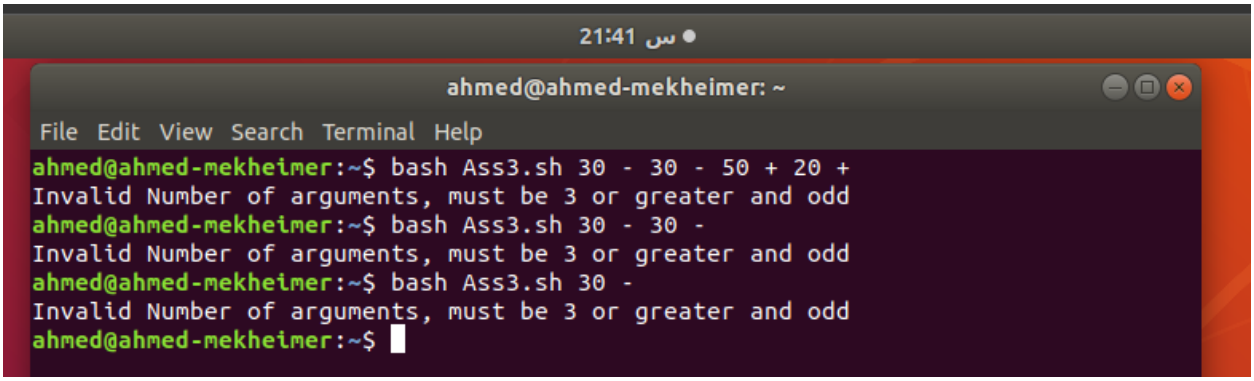


Multiple addition and subtraction

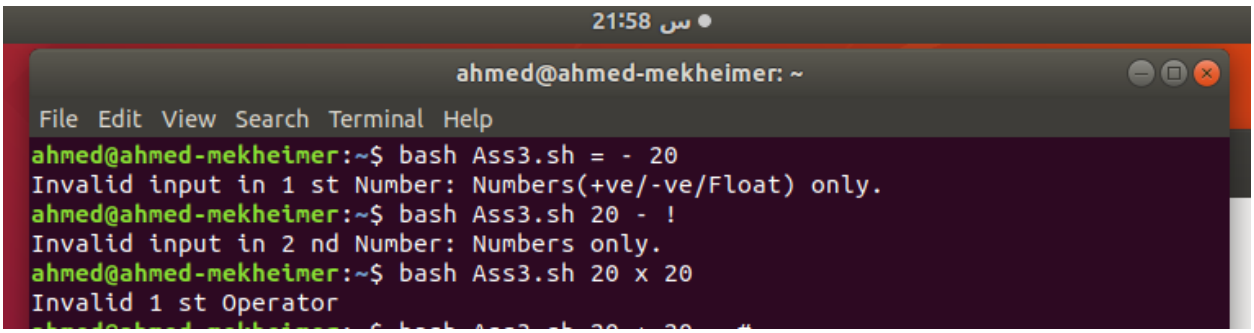


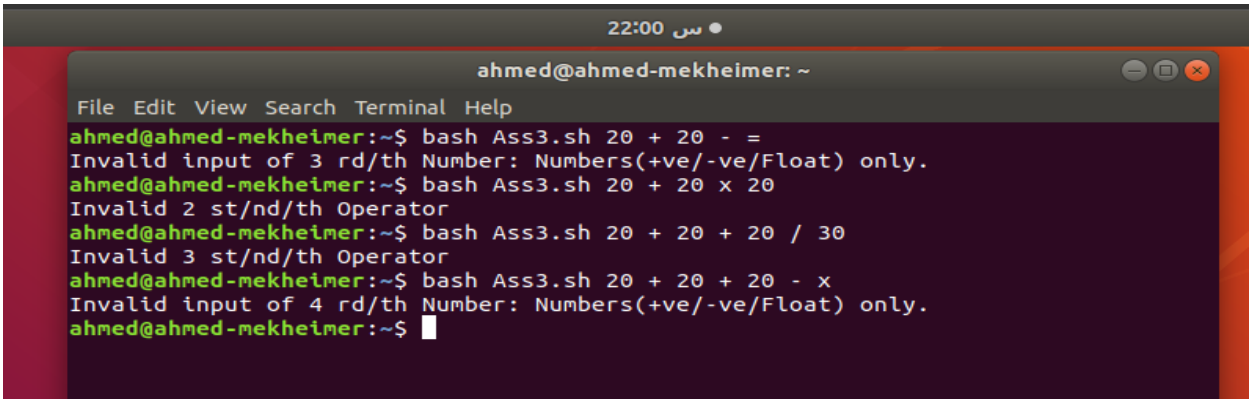


Invalid Number of Arguments:



Invalid input in arguments

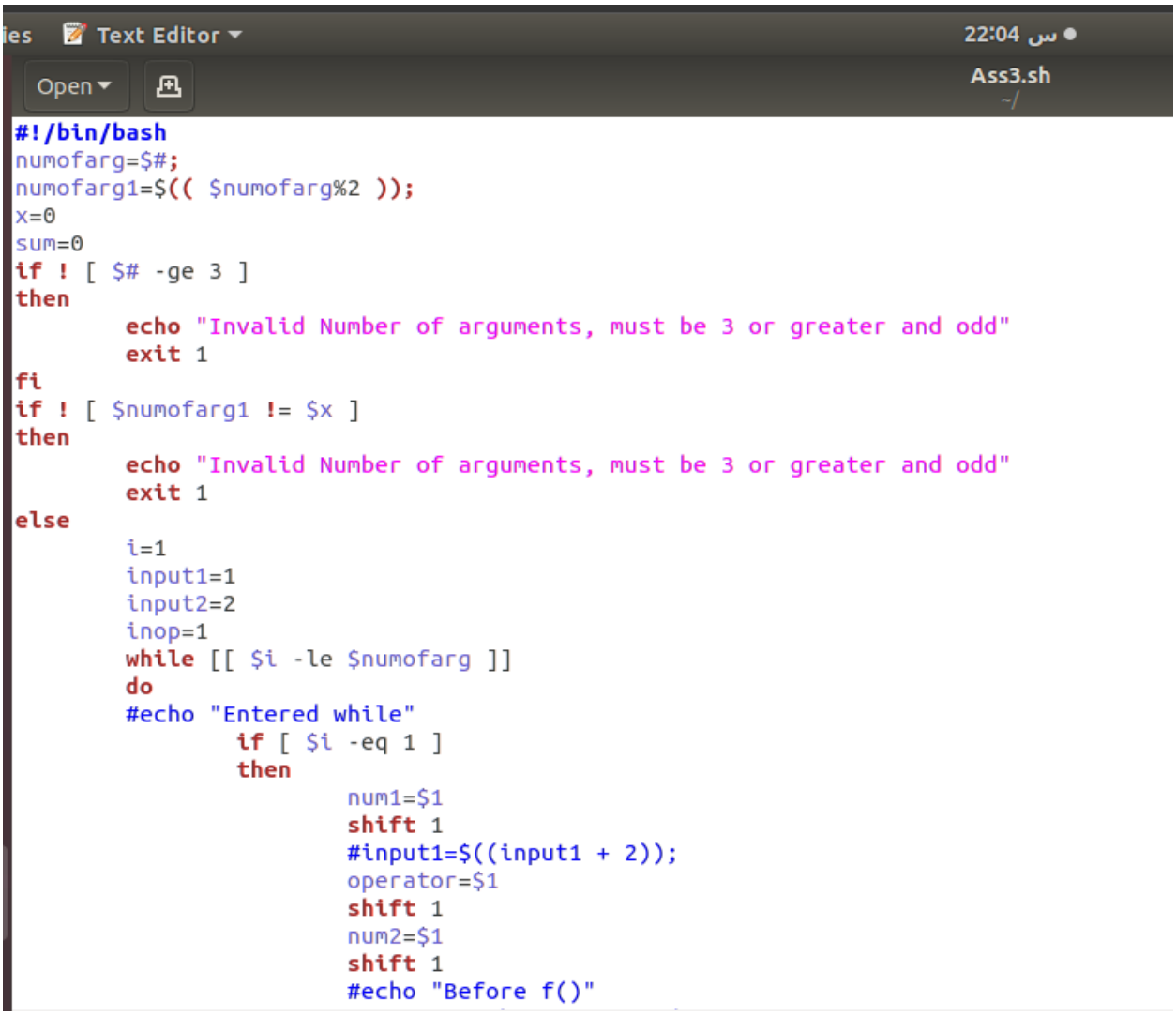




Bash file:

Drive link for Ass.3 txt file

https://drive.google.com/drive/folders/1zf2OjIzdJCJFI7bAUkXuDuMv6XiZDZ08?usp=sharing



```
                        #echo "Before f()"
                        #function that tests and calculates
                        if ! [[ $num1 =~ ^[+-]?[0-9]+([.][0-9]+)?$ ]] ;
                        then
                                echo "Invalid input in $input1 st Number: Numbers(+ve/-ve/Float) only."
                                exit 1

                        elif ! [[ $num2 =~ ^[+-]?[0-9]+([.][0-9]+)?$ ]] ;
                        then
                                echo "Invalid input in $input2 nd Number: Numbers only."
                                exit 1
                        fi

                                case $operator in
                                  +) sum=$(( num1 + num2 ))
                                        #echo "+"
                                  ;;
                                  -) sum=$(( num1 - num2 ))
                                        #echo "-"
                                  ;;
                                  *) echo "Invalid $inop st Operator"
                                     exit 1
                                  ;;
                                esac
                        #echo "i+++"
                        i=$((i + 3));
                else

                        i=$((i + 3));
                else
                        #echo "Entered 2nd phase"
                        operator=$1
                        shift 1
                        num2=$1
                        inop=$((inop + 1));
                        input2=$((inop + 1));
                        if ! [[ $num2 =~ ^[+-]?[0-9]+([.][0-9]+)?$ ]] ;
                        then
                                echo "Invalid input of $input2 rd/th Number: Numbers(+ve/-ve/Float) only."
                                exit 1
                        fi

                        case $operator in
                          +) sum=$(( sum + num2 ))
                                #echo "+"
                          ;;
                          -) sum=$(( sum - num2 ))
                                #echo "-"
                          ;;

                          *) echo "Invalid $inop st/nd/th Operator"
                             exit 1
                          ;;
                        esac
                        shift 1
                        i=$((i + 2))
                        #echo "i++"
                fi

                fi
        done
        #echo "END WHILE"
fi
#echo "END IF"
echo "Result is : $sum"
```

```
#!/bin/bash
numofarg=$#;
numofarg1=$(( $numofarg%2 ));
x=0
sum=0
if ! [ $# -ge 3 ]
then
	echo "Invalid Number of arguments, must be 3 or greater and odd"
	exit 1
fi
if ! [ $numofarg1 != $x ]
then
	echo "Invalid Number of arguments, must be 3 or greater and odd"
	exit 1
else
	i=1
	input1=1
	input2=2
	inop=1
	while [[ $i -le $numofarg ]]
	do
	#echo "Entered while"
		if [ $i -eq 1 ]
		then
			num1=$1
			shift 1
			#input1=$((input1 + 2));
```

```
operator=$1
shift 1
num2=$1
shift 1
#echo "Before f()"
#function that tests and calculates
if ! [[ $num1 =~ ^[+-]?[0-9]+([.][0-9]+)?$ ]] ;
then
        echo "Invalid input in $input1 st Number: Numbers(+ve/-ve/Float)
only."
        exit 1

elif ! [[ $num2 =~ ^[+-]?[0-9]+([.][0-9]+)?$ ]] ;
then
        echo "Invalid input in $input2 nd Number: Numbers only."
        exit 1
fi

        case $operator in
          +) sum=$(( num1 + num2 ))
                #echo "+"
          ;;
          -) sum=$(( num1 - num2 ))
                #echo "-"
          ;;
          *) echo "Invalid $inop st Operator"
            exit 1
```

```
                ;;
            esac
        #echo "i+++"
        i=$((i + 3));
    else
        #echo "Entered 2nd phase"
        operator=$1
        shift 1
        num2=$1
        inop=$((inop + 1));
        input2=$((inop + 1));
        if ! [[ $num2 =~ ^[+-]?[0-9]+([.][0-9]+)?$ ]] ;
        then
            echo "Invalid input of $input2 rd/th Number: Numbers(+ve/-
ve/Float) only."
            exit 1
        fi

        case $operator in
          +) sum=$(( sum + num2 ))
            #echo "+"
          ;;
          -) sum=$(( sum - num2 ))
            #echo "-"
          ;;

          *) echo "Invalid $inop st/nd/th Operator"
```

```
                exit 1
            ;;
        esac
        shift 1
        i=$((i + 2))
        #echo "i++"
    fi
done
#echo "END WHILE"
fi
#echo "END IF"
echo "Result is : $sum"
```