#Program to Sort Arithmetic Computations

#Welcome message

echo "Welcome to Sorting Arithmetic Computations"

#Taking three inputs from the user.

read -p "Enter 1st number: " a

read -p "Enter 2nd number: " b

read -p "Enter 3rd number: " c

#Calculations

calc1=$(( a + b \* c ))

calc2=$(( a \* b + c ))

calc3=$(( c + a/b ))

calc4=$(( a % b + c ))

#Declaring dictionary and storing each result.

declare -A calculation

calculation[0]=$calc1

calculation[1]=$calc2

calculation[2]=$calc3

calculation[3]=$calc4

echo ${calculation[@]}

#Storing the values from dictionary into array.

result=()

for(( i=0; i<${#calculation[@]}; i++ ))

do

result[$i]=${calculation[$i]}

done

echo "Array: " ${result[@]}

#Program to sort the array in descending order

for(( i=0; i<$((${#result[@]} - 1)); i++ ))

do

for (( j=$(($i+1)); j<${#result[@]}; j++ ))

do

if [ ${result[i]} -lt ${result[j]} ]

then

temp=${result[j]}

result[$j]=${result[i]}

result[$i]=$temp

fi

done

done

echo "Sorted Array in Descending order: " ${result[@]}

#Program to sort the array in ascending order

for(( i=0; i<$((${#result[@]} -1)); i++ ))

do

for(( j=$(($i+1)); j<${#result[@]}; j++ ))

do

if [ ${result[i]} -gt ${result[j]} ]

then

temp=${result[i]}

result[$i]=${result[j]}

result[$j]=$temp

fi

done

done

echo "Sorted Array in Ascending order: " ${result[@]}

