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**Section:** 8

**Assignment:** Lab2

**Task-1:**

#!/bin/sh

echo "Enter Size(N)"

read size

sum=0

echo "Enter Numbers"

i=1

while [ $i -le $size ]

do

read num

if [ $((num%2)) -eq 0 ] && [ $((num%8)) -ne 0 ]

then

sum=$((sum + num))

fi

i=$((i + 1))

done

echo $sum

**Task-2:**

#!/bin/sh

echo "Enter Size(N)"

read num

if [ $((num%4)) -ne 0 ] && [ $((num%5)) -ne 0 ]

then

echo "Rasengan"

elif (([ $((num%6)) -eq 0 ] || [ $((num%5)) -eq 0 ]) && !([ $((num%5)) -eq 0 ] && [ $((num%6)) -eq 0 ]))

then

echo "Oodama Rasengan"

elif [ $((num%5)) -eq 0 ] && [ $((num%6)) -eq 0 ]

then

echo "Rasen Shuriken"

fi

**Task-3:**

#!/bin/sh

echo "Enter a number: "

read num

sum=$num

while [ $sum -ne 1 ] && [ $sum -ne 4 ]

do

x=0

r=0

while [ $sum -gt 0 ]

do

r=$(($sum%10))

sum=$(($sum/10))

y=$(($r\*$r))

x=$(($x+$y))

done

sum=$x

done

if [ $sum -eq 1 ]

then

echo "Yes! The number is a Happy Prime"

elif [ $sum -eq 4 ]

then

echo "No! The number is not a Happy Prime"

fi

**Task-4:**

#!/bin/sh

echo "Enter the first number: "

read num1

echo "Enter the second number: "

read num2

echo "Enter the third number: "

read num3

sub=0

add=0

mul=0

if [ $num1 -gt $num2 ]

then

sub=$(($num1-$num2))

echo $sub

fi

if [ $num3 -lt $num2 ]

then

add=$(($num3+$num2))

echo $add

fi

if [ $num3 -eq $num2 ]

then

mul=$(($num3\*$num2))

echo $mul

fi

**Task-5:**

#!/bin/sh

my\_array=(10 8 20 100 12 4 5)

echo "Original Array:"

echo ${my\_array[\*]}

for ((i = 0; i<7; i++))

do

for((j = 0; j<7-i-1; j++))

do

if [ ${my\_array[j]} -gt ${my\_array[$((j+1))]} ]

then

temp=${my\_array[j]}

my\_array[$j]=${my\_array[$((j+1))]}

my\_array[$((j+1))]=$temp

fi

done

done

echo "Sorted Array:"

echo ${my\_array[\*]}