Ex. no: 2a)

Date:

Shell Script

Aim:

To write a Shellscript to to display basic calculator.

Program:

```
echo "Enter two numbers"
read num1
read num2
# Perform arithmetic operations
sum=$((num1 + num2))
diff=$((num1 - num2))
mul=$((num1 * num2))
# Handle division and modulo to prevent division by zero
if [ $num2 -eq 0 ]; then
div="undefined (division by zero)"
mod="undefined (modulo by zero)"
else
div=$((num1 / num2))
mod=$((num1 % num2))
fi
# Output the results
echo "add $sum"
echo "sub $diff"
echo "mul $mul"
echo "div $div"
echo "mod $mod"
```

Sample Input and Output

Run the program using the below command

```
[REC@local host~]$  sh arith.sh

Enter two no
5
10
add 15
sub -5
mul 50
div 0
mod 5c"
```

Result:

Arithmetic operations using the `expr` command have been successfully performed, confirming the script's ability to calculate and display numerical results

Ex. no: 2b)

Date:

Shell Script

Aim:
To write a Shellscript to test given year is leap or not using conditional statement

Program:

```
read -p "Enter a year: " year
if ((year % 4 == 0)); then
if ((year % 100 == 0)); then
if ((year % 400 == 0)); then
echo "$year is a leap year."
else
echo "$year is not a leap year."
fi
else
echo "$year is a leap year."
fi
else
echo "$year
```

Sample Input and Output
Run the program using the below command

[REC @ local host~]$ sh leap.sh

enter number
12
leap year

Result:

The leap year checking script using `if-else` logic has been successfully executed, accurately identifying leap years based on the given criteria