Program-05

Write a shell Script to find Factorial of given number

```
  GNU nano 3.2

#!/bin/sh
echo "Enter the number:"
read n
fact=1
while [ $n -gt 1 ]
do
fact=$((fact*n))
n=$((n-1))
done
echo "Factorial=$fact"
```

Output:

```
bmsce@bmsce-Precision-T1700: ~
bmsce@bmsce-Precision-T1700:~$ nano progm5.sh
bmsce@bmsce-Precision-T1700:~$ sh progm5.sh
Enter the number:
4
Factorial=24
bmsce@bmsce-Precision-T1700:~$ sh progm5.sh
Enter the number:
6
Factorial=720
bmsce@bmsce-Precision-T1700:~$
```

Program-06

Write a Shell Script to compute Gross salary of an employee

```
  GNU nano 3.2

#!/bin/sh
echo "Enter the basic salary:\c"
read b
da=$((b * 10 / 100))
hr=$((b * 20 / 100))
gr=$((b + da + hr))
echo "Gross salary=$gr"
```

Output:

```
bmsce@bmsce-Precision-T1700: ~
bmsce@bmsce-Precision-T1700:~$ nano progm6.sh
bmsce@bmsce-Precision-T1700:~$ sh progm6.sh
Enter the basic salary:14500
Gross salary=18850
bmsce@bmsce-Precision-T1700:~$ sh progm6.sh
Enter the basic salary:5900
Gross salary=7670
bmsce@bmsce-Precision-T1700:~$
```

Program-07

Write a Shell script to convert the temperature Fahrenheit to Celsius

```
#!/bin/sh
echo "Enter the temperature in Fahreneit:\c"
read f
t=`echo "$f - 32" | bc`
c=`echo "$f * 5 / 9" | bc`
echo "Temperature in Celsius:$c"
```

Output:

```
bmsce@bmsce-Precision-T1700:~$ nano progm7.sh
bmsce@bmsce-Precision-T1700:~$ sh progm7.sh
Enter the temperature in Fahreneit:80
Temperature in Celsius:44
bmsce@bmsce-Precision-T1700:~$
```

Program-08

Write a Shell script to perform arithmetic operations on given two numbers

```
  GNU nano 3.2

#!/bin/sh
echo "Enter a and b:\c"
read a;read b
while true;do
echo "Enter your choice: 1.ADD 2.Sub 3.Divide 4.Multiply"
read ch
case "$ch" in
1) echo "$a+$b" | bc;;
2) echo "$a-$b" | bc;;
3) echo "$a/$b" | bc;;
4) echo "$a*$b" | bc;;
*) echo "Invalid choice"
exit;;
esac
done
```

Output:

```
bmsce@bmsce-Precision-T1700: ~
bash: /opt/ros/noetic/setup.bash: No such file or directory
bash: /opt/ros/noetic/setup.bash: No such file or directory
bmsce@bmsce-Precision-T1700:~$ nano progm8.sh
bmsce@bmsce-Precision-T1700:~$ sh  progm8.sh
Enter a and b:10
5
Enter your choice: 1.ADD 2.Sub 3.Divide 4.Multiply
1
15
Enter your choice: 1.ADD 2.Sub 3.Divide 4.Multiply
2
5
Enter your choice: 1.ADD 2.Sub 3.Divide 4.Multiply
3
2
Enter your choice: 1.ADD 2.Sub 3.Divide 4.Multiply
4
50
Enter your choice: 1.ADD 2.Sub 3.Divide 4.Multiply
5
Invalid choice
bmsce@bmsce-Precision-T1700:~$
```

Program-09

Write a Shell script to find the sum of even numbers up to n

```
  GNU nano 3.2

#!/bin/sh
echo "Enter the last number:\c"
read n
i=2
while [ $i -le $n ]
do
sum=$((sum + i))
i=$((i + 2))
done
echo "sum=$sum"
```

Output:

```
bmsce@bmsce-Precision-T1700:~$ nano progm9.sh
bmsce@bmsce-Precision-T1700:~$ sh progm9.sh
Enter the last number:5
sum=6
bmsce@bmsce-Precision-T1700:~$ sh progm9.sh
Enter the last number:10
sum=30
bmsce@bmsce-Precision-T1700:~$
```