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USP LAB-2

Program1:

Find if a given number is zero,positive or negative number.

PROGRAM:

```
#/bin/sh
echo "Enter a number"
read num
if [ $num -eq 0 ]
then
        echo "The number is zero"
elif [ $num -gt 0 ]
then
        echo "The number is positive"
else
        echo "The number is negative"
fi
```

OUTPUT:

```
bmsce@bmsce-Precision-T1700:~$ vi program1.sh
bmsce@bmsce-Precision-T1700:~$ sh program1.sh
Enter a number
0
The number is zero
bmsce@bmsce-Precision-T1700:~$ sh program1.sh
Enter a number
8
The number is positive
bmsce@bmsce-Precision-T1700:~$ sh program1.sh
Enter a number
-9
The number is negative
```

Program2:
Find the greatest of three numbers.
PROGRAM:

```
#/bin/sh
echo "Enter three numbers"
read a b c
if [ $a -gt $b -a $a -gt $c ]
then
        echo "The greatest number among three numbers is $a"
elif [ $b -gt $a -a  $b -gt $c ]
then
        echo "The greatest number among three numbers is $b"
elif [ $c -gt $a -a $c -gt $b ]
then
        echo "The greatest number among three numbers is $c"
else
        echo "The numbers are equal"
fi
```

OUTPUT:

```
bmsce@bmsce-Precision-T1700:~$ vi program2.sh
bmsce@bmsce-Precision-T1700:~$ sh program2.sh
Enter three numbers
10 20 30
The greatest number among three numbers is 30
bmsce@bmsce-Precision-T1700:~$ sh program2.sh
Enter three numbers
50 50 50
The numbers are equal
```

Program3:
Find if a year is leap year or not.
PROGRAM:

```
#/bin/sh
echo "Enter a year"
read y

if [ `expr $y % 100` -eq 0 -a `expr $y % 400` -ne 0 ]
then
        echo "The year is not a leap year"
elif [ `expr $y % 4` -eq 0 ]
then
        echo "The year is a leap year"
else
        echo "The year is not a leap year"
fi
```

OUTPUT:

```
bmsce@bmsce-Precision-T1700:~$ vi program3.sh
bmsce@bmsce-Precision-T1700:~$ sh program3.sh
Enter a year
1700
The year is not a leap year
bmsce@bmsce-Precision-T1700:~$ sh program3.sh
Enter a year
1600
The year is a leap year
```

Program4:

Find the area of the circle.

PROGRAM:

```
#/bin/sh
echo "Enter radius"
read r
echo "Area of circle:"
echo " 3.14 * $r * $r " | bc
```

OUTPUT:

```
bmsce@bmsce-Precision-T1700:~$ vi program4.sh
bmsce@bmsce-Precision-T1700:~$ sh program4.sh
Enter radius
5
Area of circle:
78.50
```