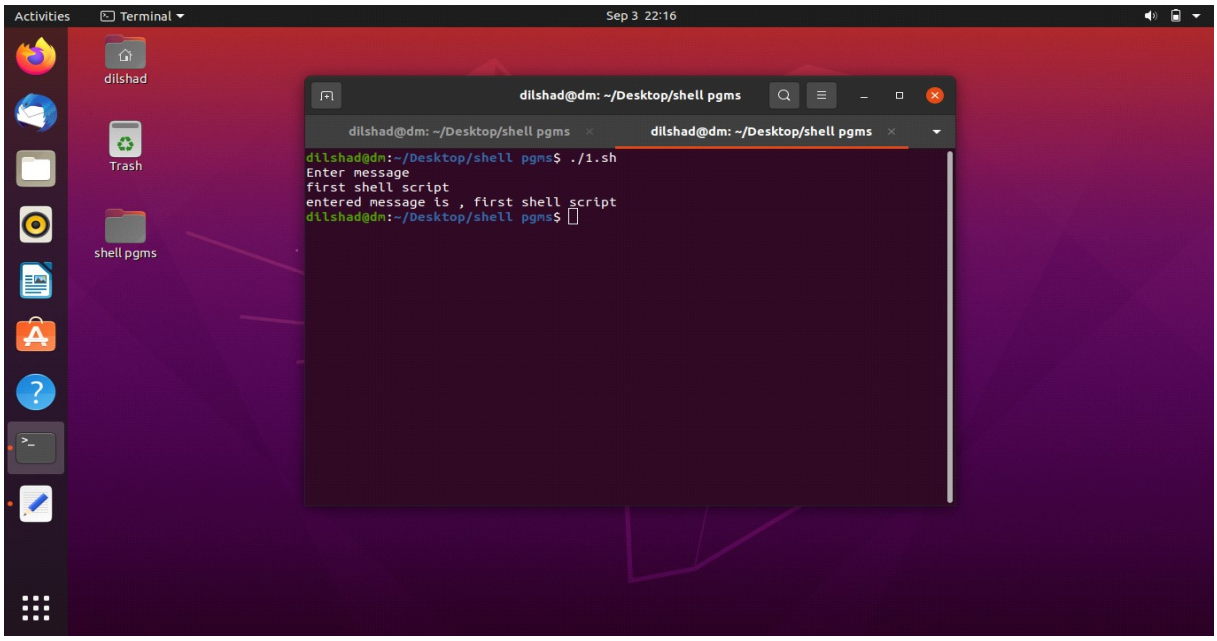
Shell 15 programs :-

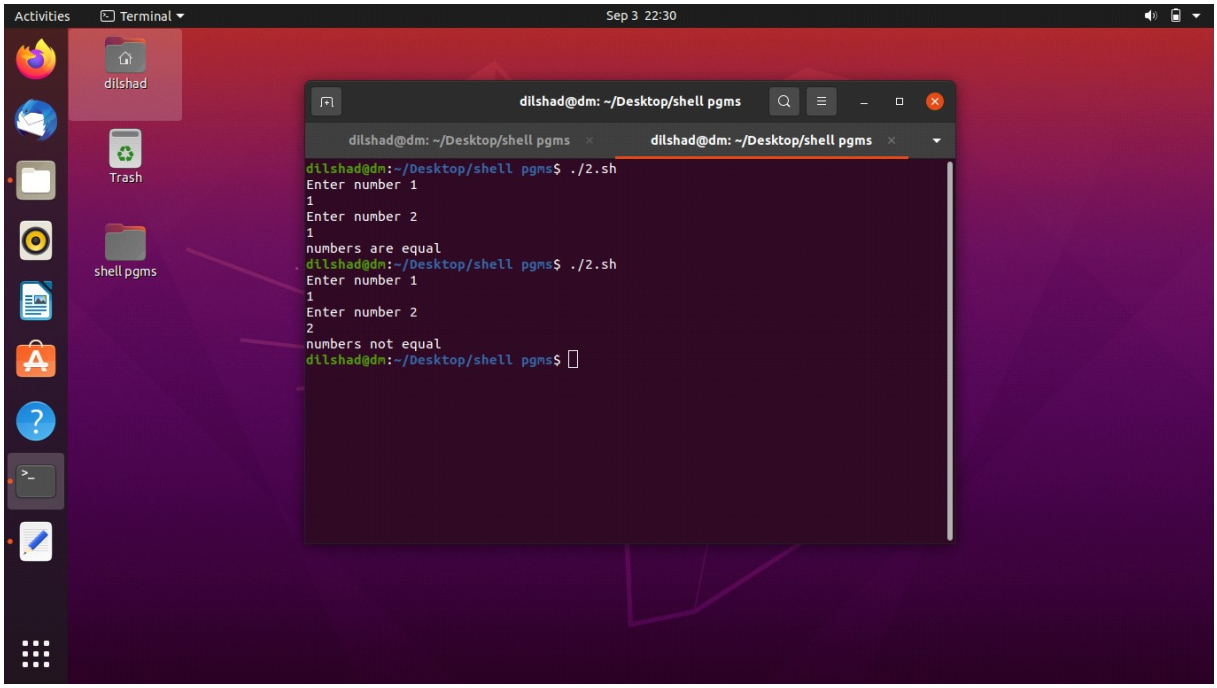
1)Write a shell script program to display a given message.

```
#!/bin/sh
echo "Enter message"
read msg
echo "entered message is , $msg"
```



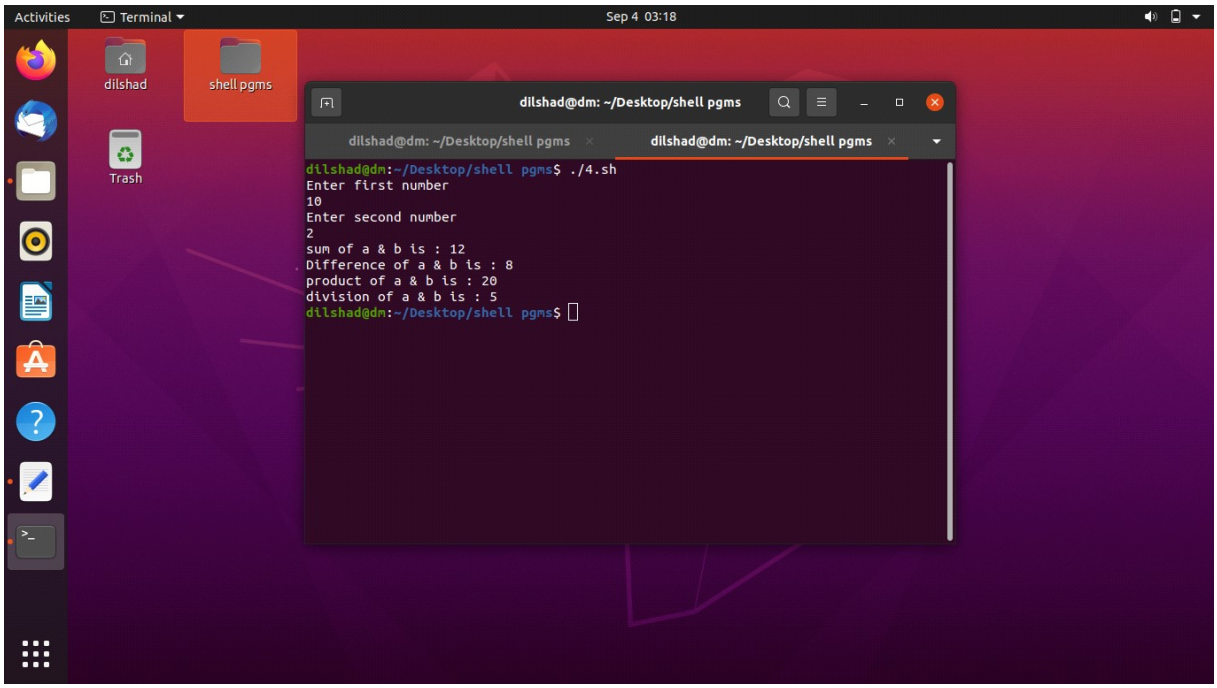
2) **Write a shell script to print whether two numbers are equal or not.**

```
#!/bin/sh
echo "Enter number 1"
read a
echo "Enter number 2"
read b
if [ $a -eq $b ]
then
echo "numbers are equal"
else
echo "numbers not equal"
fi
```



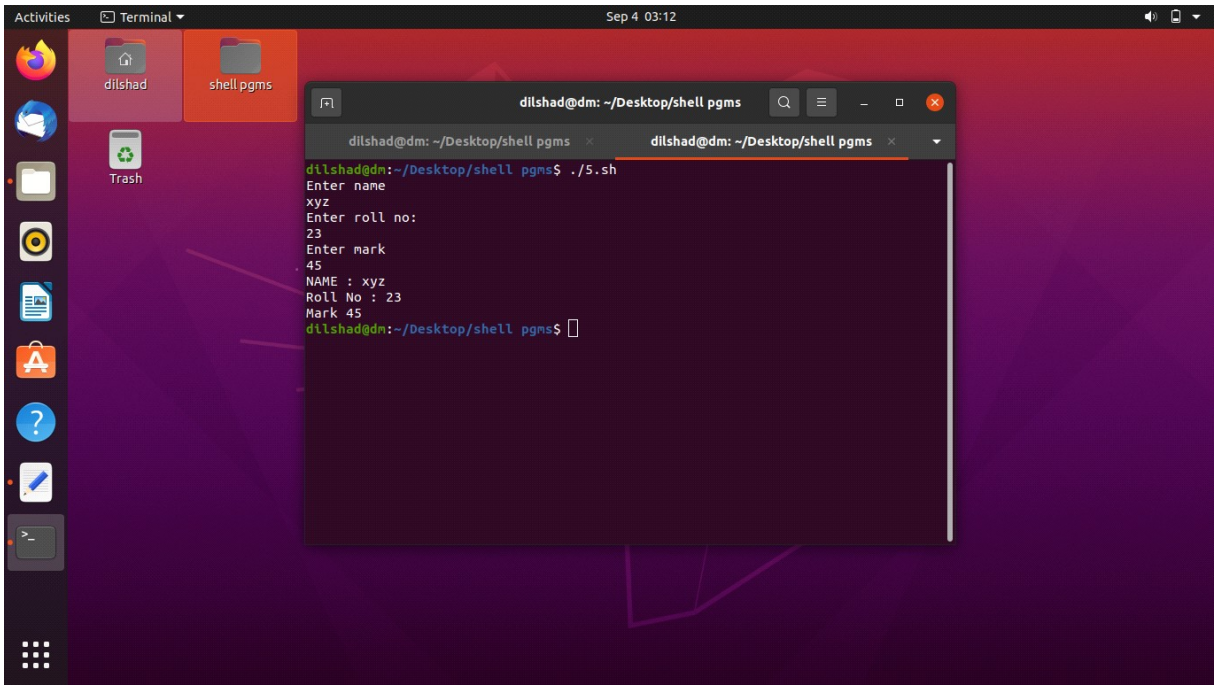
4) **Write a shell script to perform integer arithmetic operations.**

```
#!/bin/sh
echo "Enter first number"
read a
echo "Enter second number"
read b
add=$(( $a + $b ))
sub=$(( $a - $b ))
mul=$(( $a * $b ))
div=$(( $a / $b ))
echo "sum of a & b is : $add"
echo "Difference of a & b is : $sub"
echo "product of a & b is : $mul"
echo "division of a & b is : $div"
```



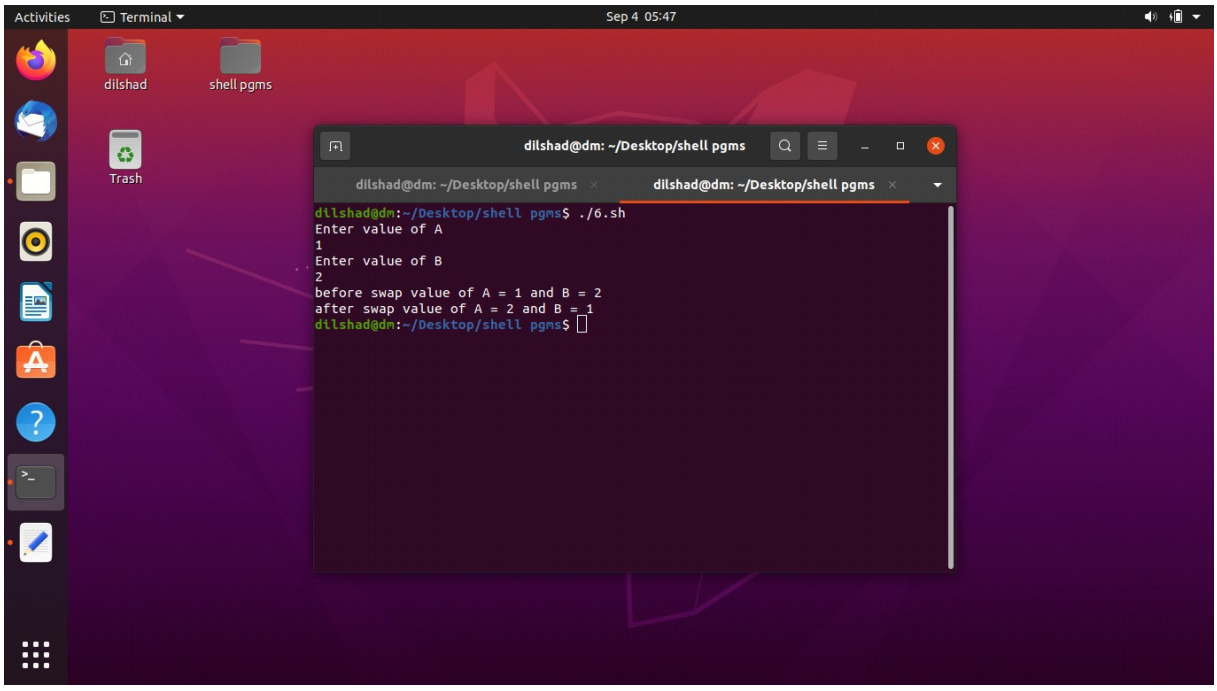
5) **Write a shell script to getting input details like name, roll number and marks and print them.**

```
#!/bin/sh
echo "Enter name"
read name
echo "Enter roll no:"
read no
echo "Enter mark"
read mark
echo "NAME : $name"
echo "Roll No : $no"
echo "Mark $mark "
```



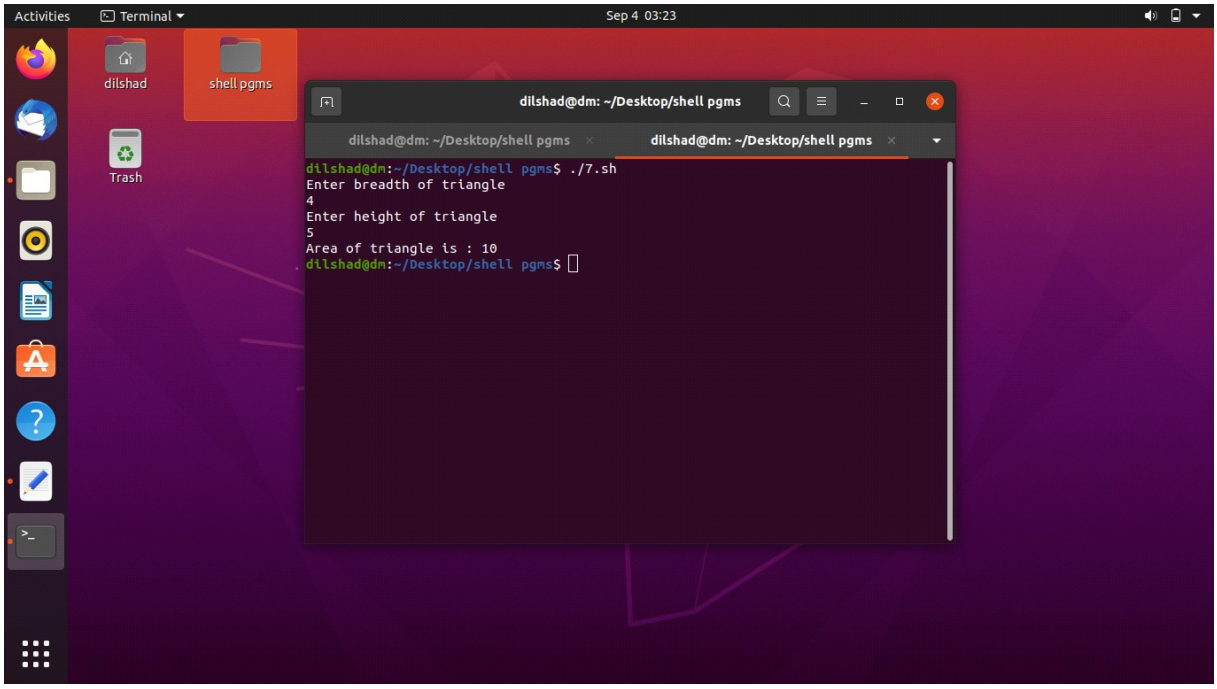
6) **Write a Shell program to swap two values.**

```
#!/bin/sh
echo "Enter value of A"
read a
echo "Enter value of B"
read b
echo "before swap value of A = $a and B = $b"
a=$(($a+$b))
b=$(($a-$b))
a=$(($a-$b))
echo "after swap value of A = $a and B = $b"
```



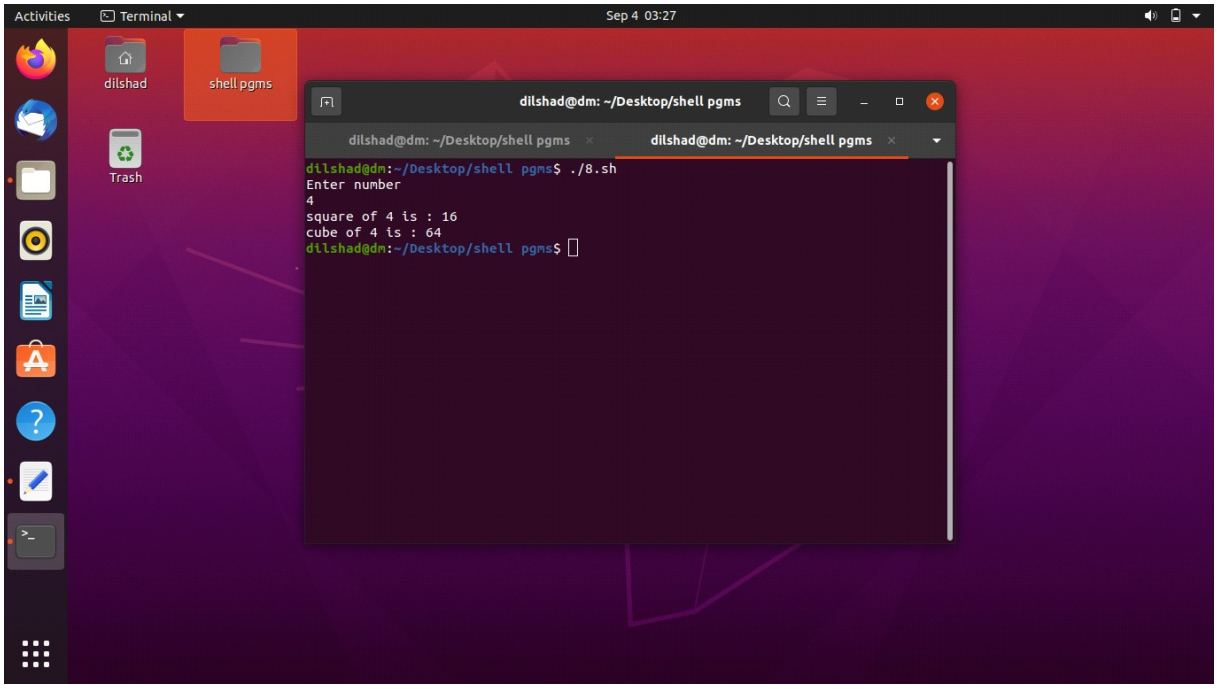
7) **Write a shell program to find the area of a triangle.**

```
#!/bin/sh
echo "Enter breadth of triangle"
read b
echo "Enter height of triangle"
read h
ar=$(($b * $h))
area=$(($ar/2))
echo "Area of triangle is : $area"
```



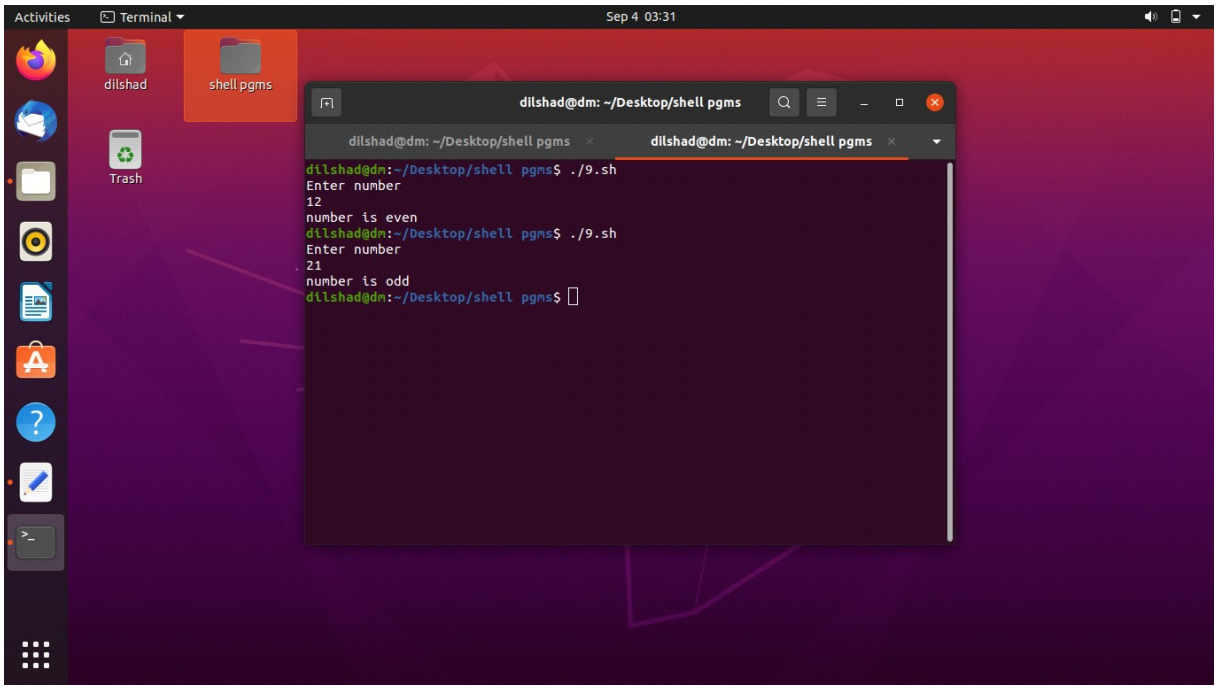
8) **Write a shell program to find the square and cube of a number.**

```
#!/bin/sh
echo "Enter number"
read n
sq=$(($n*$n))
cu=$(($n*$n*$n))
echo "square of $n is : $sq"
echo "cube of $n is : $cu"
```



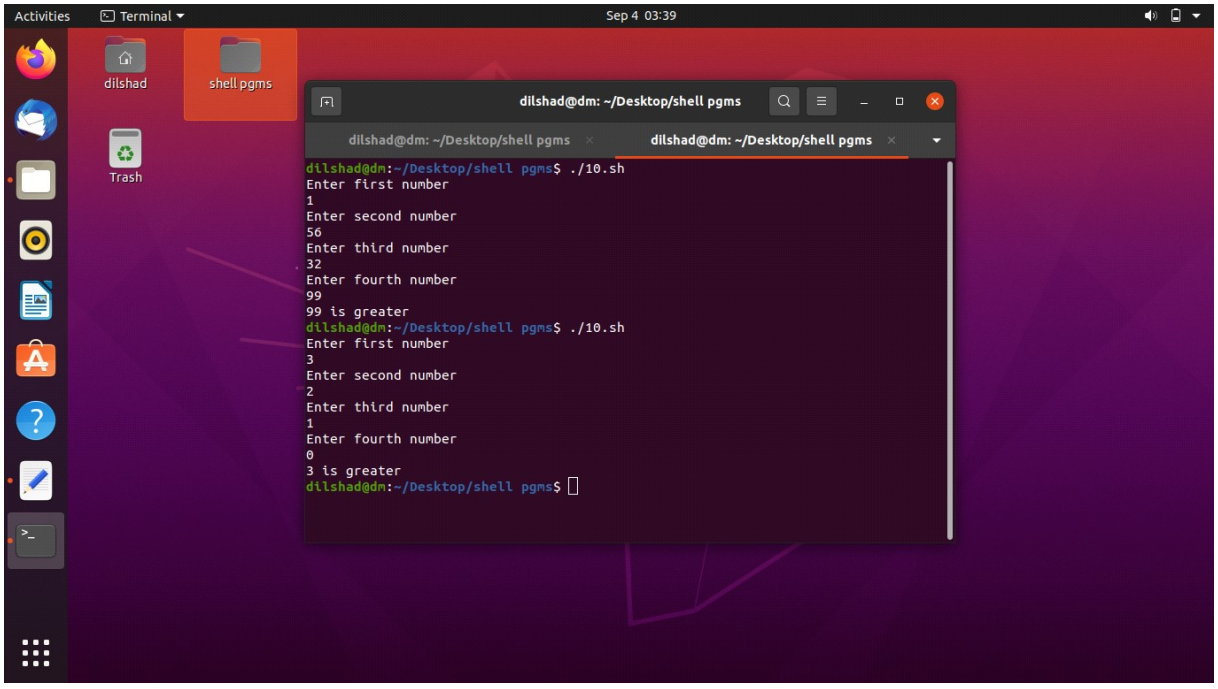
9) **Write a shell program to check whether the given number is odd or even.**

```
#!/bin/sh
echo "Enter number"
read n
rem=$(($n%2))
if [ $rem -eq 0 ]
then
echo "number is even "
else
echo "number is odd"
fi
```



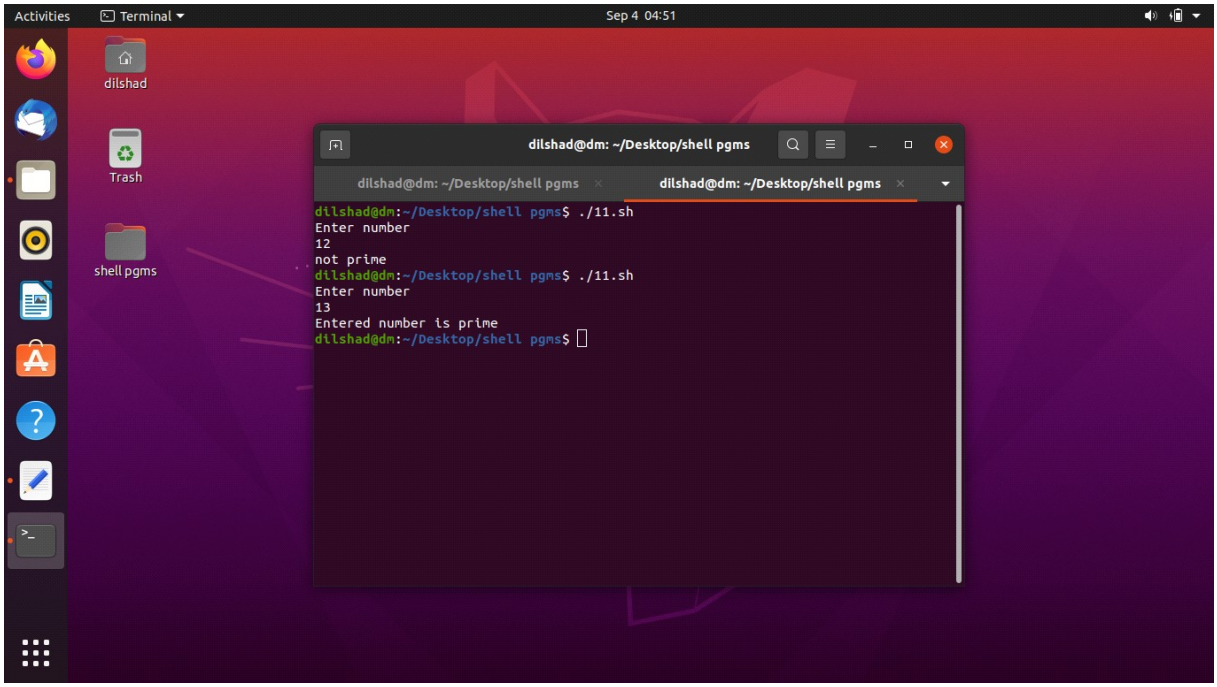
10) **Write a shell program to find the minimum among four values.**

```
#!/bin/sh
echo "Enter first number"
read a
echo "Enter second number"
read b
echo "Enter third number"
read c
echo "Enter fourth number"
read d
if [ $a -gt $b    ] && [ $a -gt $c ] && [ $a -gt $d ]
then
echo "$a is greater"
elif [ $b -gt $a    ] && [ $b -gt $c ] && [ $b -gt $d ]
then
echo "$b is greater"
elif [ $c -gt $a    ] && [ $c -gt $b ] && [ $c -gt $d ]
then
echo "$c is greater"
else
echo "$d is greater"
fi
```



11) **Write a shell program to check whether the input number is prime or not.**

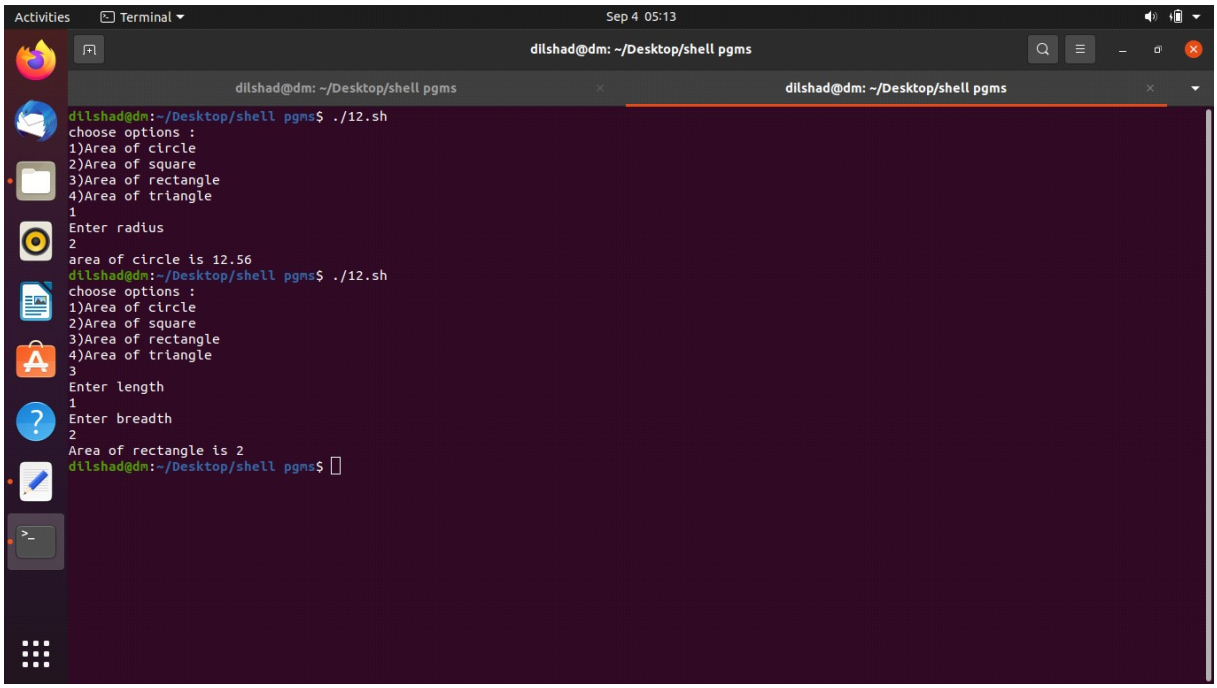
```
#!/bin/sh
echo "Enter number"
read n
f=0
for i in 2 $((n/2))
do
[ $((n%i)) -eq 0 ] && f=1
done
[ $f -eq 0 ] && echo "Entered number is prime" || echo "not prime"
```



12) **Write a shell program to find the area of circle, square, rectangle and triangle using case statements.**

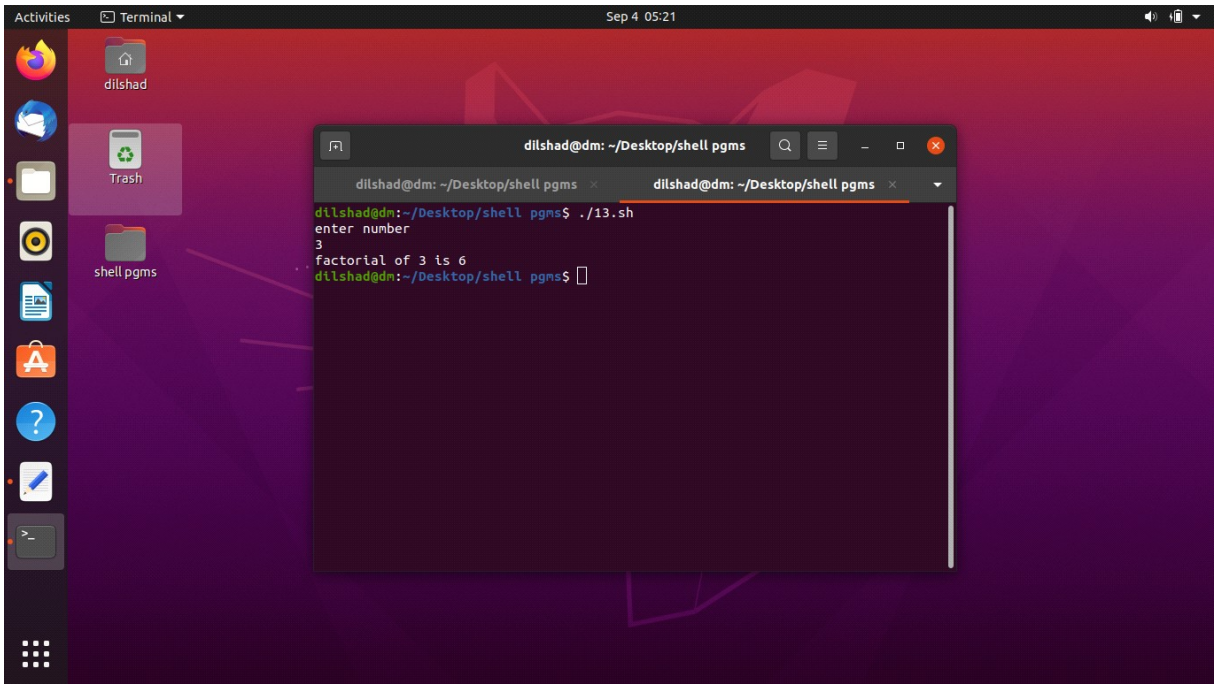
```
#!/bin/sh
echo "choose options :"
echo "1)Area of circle"
echo "2)Area of square"
echo "3)Area of rectangle"
echo "4)Area of triangle"
read ch
case $ch in
        1)echo "Enter radius"
        read r
        area=$(echo "3.14 * $r *$r" |bc)
        echo "area of circle is $area"
        break
        ;;
        2)echo "Enter side"
        read l
        area=$(($l*$l))
        echo "area of square is $area"
        break
        ;;
        3)echo "Enter length"
        read l
        echo "Enter breadth"
        read b
        area=$(($l*$b))
        echo "Area of rectangle is $area"
        break
```

```
        ;;
        4)echo "Enter breadth"
        read b
        echo "Enter height"
        read h
        ar=$(($b*$h))
        area=$(($ar/2))
        echo "Area of triangle is : $area"
        break
        ;;
        *)echo "invalid option ! ! !"
        ;;
esac
```



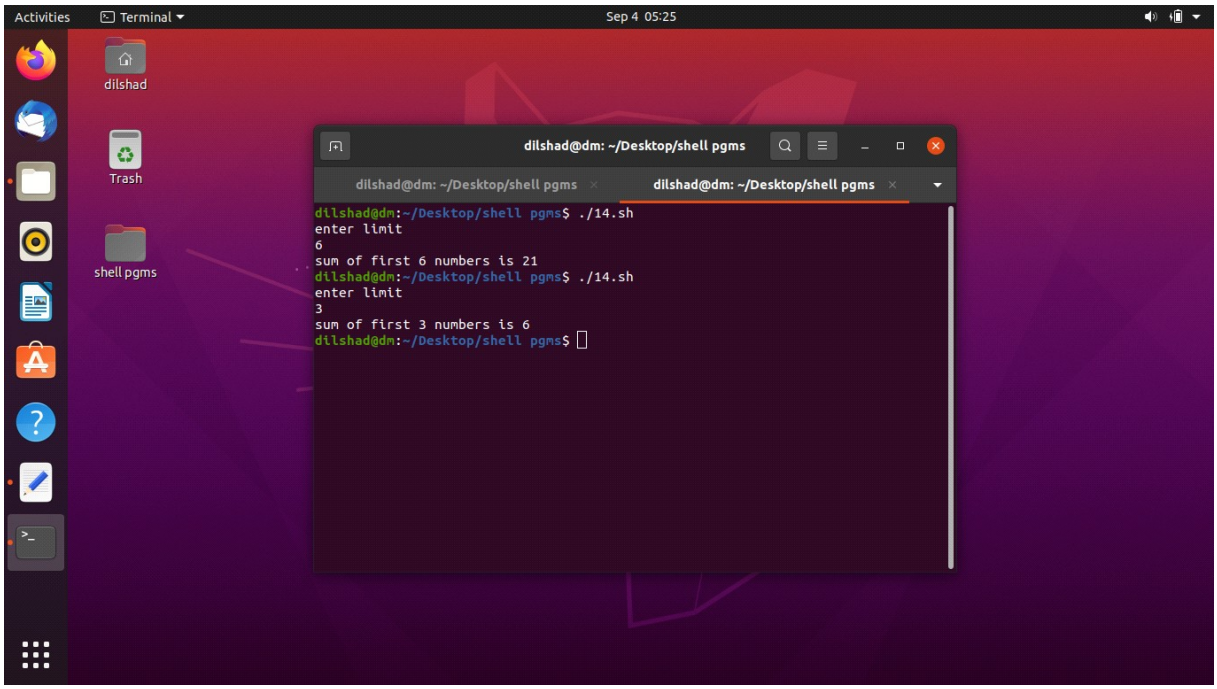
13) **Write a shell program to find the factorial of a given number.**

```
#!/bin/sh
echo "enter number"
read n
fact=1
i=1
while [ $i -le $n ]
do
fact=$(($fact*$i))
i=$(($i+1))
done
echo "factorial of $n is $fact"
```



14) **Write a Simple Shell script to print the sum of n natural numbers.**

```
#!/bin/sh
echo "enter limit"
read n
sum=0
i=1
while [ $i -le $n ]
do
sum=$(($sum+$i))
i=$(($i+1))
done
echo "sum of first $n numbers is $sum"
```



15) **Write a shell program to reverse a number.**

```
#!/bin/sh
echo "Enter a number"
read n
num=$n
rev=0
while [ $n -gt 0 ]
do
d=$(($n%10))
rev=$((rev*10+$d))
n=$(($n/10))
done
echo "Reverse of $num is $rev"
```