

Bash Shell Script to find Factorial of a number

In this program, you will learn how to find factorial of a number using for loop. The formula for calculating the factorial of a number is-

$$n! = 1 * 2 * 3 * 4 * 5 * \dots * n$$

```
#Bash script to find factorial of a number
echo -n "Enter a number: "
read number
factorial=1
for(( i=1; i<=number; i++ ))
do
    factorial=$(( $factorial * $i ))
done
echo "The factorial of $number is $factorial"
```

Output of the above program

```
Enter a number: 6
The factorial of 6 is 720
```

Explanation of the above code-

for loop will iterate through all numbers from 1 to the entered number and stores the multiplication of each number in a **factorial** variable.