#!/bin/bash

# find factorial using recurrence method

function factorial\_recurrence {

if [ $1 -eq 1 ]; then

echo 1

else

echo $(( $1 \* $(factorial\_recurrence $(( $1 - 1 ))) ))

fi

}

# prompt user to enter a number

echo "Enter a number:"

read num

# calculate factorial using recurrence method

result\_recurrence=$(factorial\_recurrence $num)

# print the result

echo "Factorial of $num using recurrence method is: $result\_recurrence"