

```

'''
*****
* Discrete Structures
* Factorial Program
* Programmer: Mark Eatough
* Course: CSIS 2430
* Created August 25, 2013

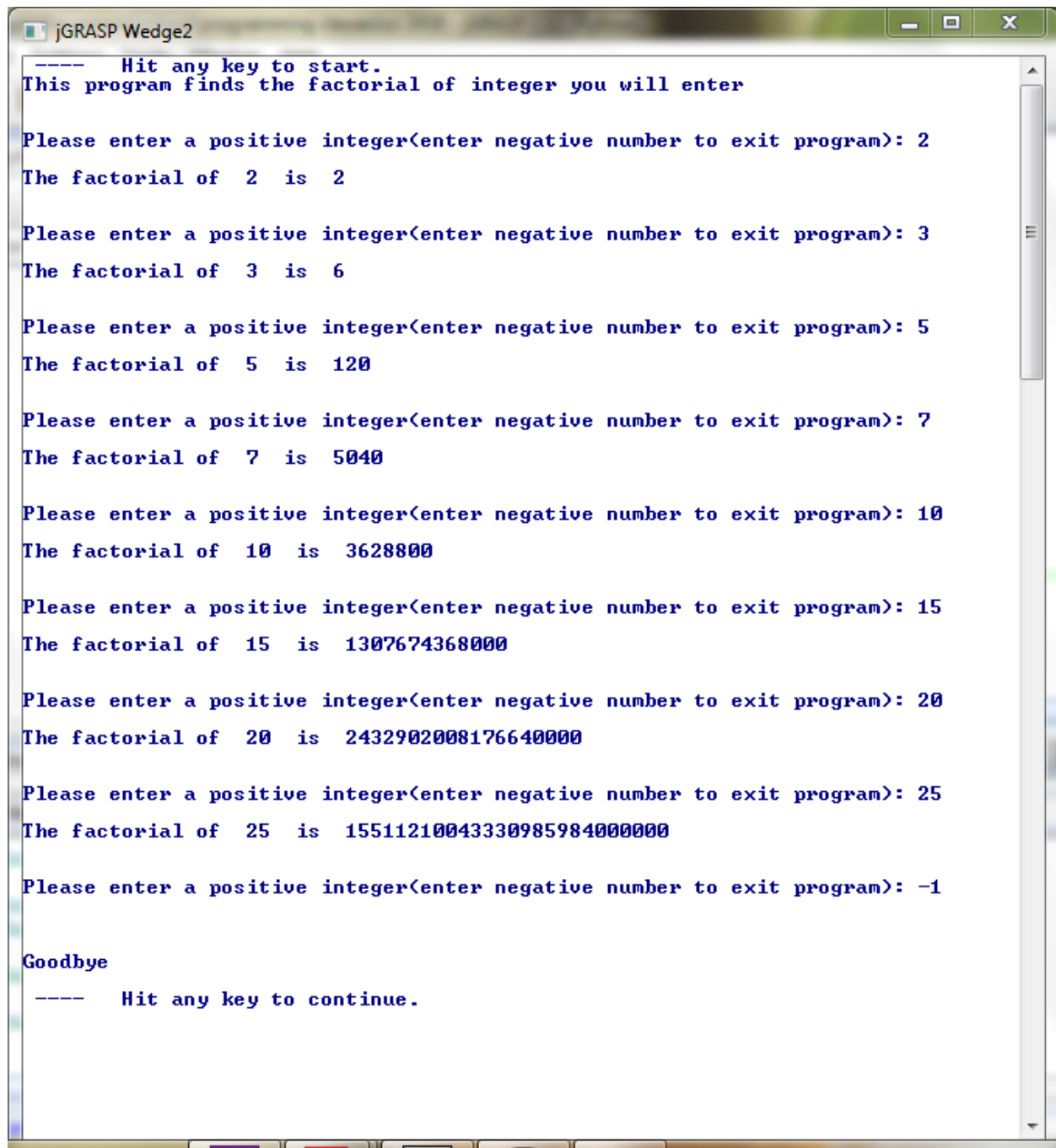
*This program Prompts the user to enter an integer, and
*then outputs the factorial of that integer. The program
*will continuously prompt the user and output the factorial
*until a negative number is entered
*****
'''

#condition tested for exiting loop
exit = False
#tell the user what the program will do
print "This program finds the factorial of integer you will
enter\n\n"

#Beginning of what is effectively a do while loop
while exit == False:
    #prompt user to enter a number
    num = input("Please enter a positive integer(enter negative
number to exit program): ")
    #check to see if number is negative
    if num < 0:
        #change exit variable to true if number is negative
        exit = True
        print "\n\nGoodbye"
    #if number is positive find factorial
    else:
        #factorial function
        def factorial(n):
            temp = n-1
            while temp > 0:
                n *= temp
                temp-=1
            return n
        #end factorial function

```

```
#print statement to output user number and factorial of
that number
print "\nThe factorial of ", num, " is ", factorial(num),
"\n\n"
#End of "do while" loop
```



```
----- Hit any key to start.
This program finds the factorial of integer you will enter

Please enter a positive integer<enter negative number to exit program>: 2
The factorial of 2 is 2

Please enter a positive integer<enter negative number to exit program>: 3
The factorial of 3 is 6

Please enter a positive integer<enter negative number to exit program>: 5
The factorial of 5 is 120

Please enter a positive integer<enter negative number to exit program>: 7
The factorial of 7 is 5040

Please enter a positive integer<enter negative number to exit program>: 10
The factorial of 10 is 3628800

Please enter a positive integer<enter negative number to exit program>: 15
The factorial of 15 is 1307674368000

Please enter a positive integer<enter negative number to exit program>: 20
The factorial of 20 is 2432902008176640000

Please enter a positive integer<enter negative number to exit program>: 25
The factorial of 25 is 15511210043330985984000000

Please enter a positive integer<enter negative number to exit program>: -1

Goodbye
----- Hit any key to continue.
```