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```
function maclaurin(x,n);
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% ENGR 133
% Program Description
%
%
% Assignment Information
%   Assignment:      Ma2 Task 5
%   Author:          Yolanda, chen3633@purdue.edu
%   Team ID:         LC1-15
%   Contributor:     Name, login@purdue [repeat for each]
%   My contributor(s) helped me:
%       [ ] understand the assignment expectations without
%           telling me how they will approach it.
%       [ ] understand different ways to think about a solution
%           without helping me plan my solution.
%       [ ] think through the meaning of a specific error or
%           bug present in my code without looking at my code.
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

INITIALIZATION

```
%prompt the suer to input the initial values of n and x
n = input("Enter the n value: ");
x = input("Enter the x value: ");

Error using input
Cannot call INPUT from EVALC.

Error in Ma2_Task5A_15 (line 25)
n = input("Enter the n value: ");
```

CALCULATIONS

```
%calculate the approximated sum using the for loop
approx = 0;
for k = 0:n
    eApprox = x^k/factorial(k);
    approx = approx + eApprox;

end
%calculate the actual value using the built in function exp()
act_val = round(exp(x), 2);
err = 100*((approx-act_val)/act_val);
```

OUTPUTS

```
%use fprintf to print the formatted output
fprintf("Approximate value: %.2f\n", approx)
fprintf("Actual Value: %.2f\n", act_val)
fprintf('Error: %.1f%% \n', err);
```

ACADEMIC INTEGRITY STATEMENT

I have not used source code obtained from any other unauthorized source, either modified or unmodified. Neither have I provided access to my code to another. The project I am submitting is my own original work.

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