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```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% ENGR 133
% Program Description:
%
% Assignment Information
%   Assignment:     Ma2 Task5B
%   Author:         Roshan Sundar, rmsundar
%   Team ID:        LC1-04
%   Contributor:    Ayush Viswanathan, Jackson Bitterolf, Nolan Hays
%   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

```
x = input('Enter the value of x: ');
n = input('Enter the target error threshold: ');

tValue = 0;
aValue = round(exp(x),2);
numTerms = 0;
```

```
Error using input
Cannot call INPUT from EVALC.

Error in Ma2_task5B_04 (line 21)
x = input('Enter the value of x: ');
```

CALCULATIONS

```
while 1
    tValue = tValue + (x^numTerms)/factorial(numTerms);
    numTerms = numTerms + 1;
    if (n > (abs((tValue-aValue)/(aValue))*100))
        break
    end
end
tValue = round(tValue,2);
```

OUTPUTS

```
fprintf('Target error threshold: %d%%\n', n);
fprintf('Actual value: %.2f\n', aValue);
fprintf('Terms needed: %d\n', numTerms);
fprintf('Approximate value: %.2f\n', tValue);
```

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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