

TC101 (Both versions edition)  
Quiz#4

Remember that this will not be graded but you should keep this sheet and your solutions as evidence of work. Email your answers to Ken today (so we keep a record of your code today) and also I recommend you post your code on Github and write on your blog as another blog post evidence.

Use your own computer to write the code. Remember that I trust you and you need to do this honestly to give yourself a good “measure” of your ability to this point. If you complete this later than today, then just complete as quick as you can.

1. The number  $e$  is an important mathematical constant that is the base of the natural logarithm. It is approximately equal to 2.71828,[1] and is the limit of  $(1 + 1/n)^n$  as  $n$  approaches infinity, an expression that arises in the study of compound interest. It can also be calculated as the sum of the infinite series.

$$e = \sum_{n=0}^{\infty} \frac{1}{n!} = 1 + \frac{1}{1} + \frac{1}{1 \cdot 2} + \frac{1}{1 \cdot 2 \cdot 3} + \dots$$

Source: [https://en.wikipedia.org/wiki/E\\_\(mathematical\\_constant\)](https://en.wikipedia.org/wiki/E_(mathematical_constant))

Create a function called `euler_calc` with a single parameter `precision`. The value of `precision` is used to determine when to stop calculating. Your calculation will stop when the two consecutive values estimating  $e$  differ by less than `precision` (remember to use absolute value when calculating the difference between two values here).

Share your solution in a blog post called Quiz04