

# Circle packing for primes by my definition

December 19, 2021

Yuji Masuda

y\_masuda0208@yahoo.co.jp

I do not believe that the solution of the Riemann hypothesis reveals all of the prime numbers.

## Abstract

It is commonly known that the first place of a prime number is 1, 3, 7, and 9, except for 2 and 5. The purpose of this study is to explore the geometric properties of prime numbers, using my Definition Series with four circles of radius 1, 2, 3, 4, and the results were discussed.

## Introduction

First, in light of my Definition Series.

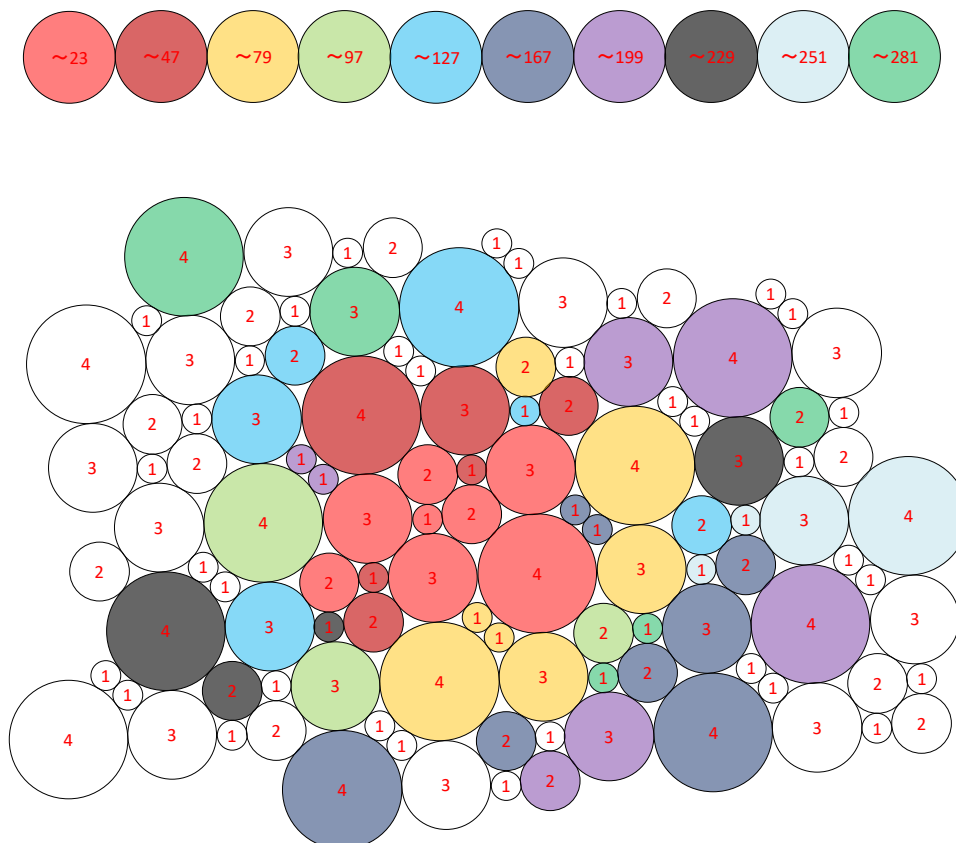
I have consistently stated in my research that  $1 \Rightarrow 1$ ,  $2 \Rightarrow 2$ ,  $3 \Rightarrow 3$ ,  $4 \Rightarrow 4$ ,  $5 \Rightarrow 0$ ,  $6 \Rightarrow 1$ ,  $7 \Rightarrow 2$ ,  $8 \Rightarrow 3$ ,  $9 \Rightarrow 4$ ,  $10 \Rightarrow 0$ .

Applying the above to prime numbers, we see that  $2 \Rightarrow 2$ ,  $3 \Rightarrow 3$ ,  $5 \Rightarrow 0$ ,  $7 \Rightarrow 2$ ,  $11 \Rightarrow 1$ ,  $13 \Rightarrow 3$ ,  $17 \Rightarrow 2$ ,  $19 \Rightarrow 4$ ,  $23 \Rightarrow 3$ ... and so on.

## Circle packing

From the above, 1 is a circle with a diameter of 1, 2 is a circle with a diameter of 2, 3 is a circle with a diameter of 3, 4 is a circle with a diameter of 4, 5 is a circle with diameter 0, for a total of 4 circles. Consider the plane filling of these.

Circle packing of Primes 2 ~ 281



## Conclusion

Although we think that plane filling is not very meaningful and not very important, we think it is meaningful to consider prime numbers from various angles.