Prime Number Theorem

$$\lim_{x\to\infty} \frac{\pi(x)}{li(x)} = 1 \qquad \lim_{x\to\infty} \frac{\pi(x)}{\frac{x}{\ln(x)}} = 1$$

Zeta Function:

$$\zeta(s) = 1 + \frac{1}{2^s} + \frac{1}{3^s} + \frac{1}{4^s} + \cdots$$

$$\zeta(2) = 1 + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \cdots = \frac{\pi^2}{6}$$

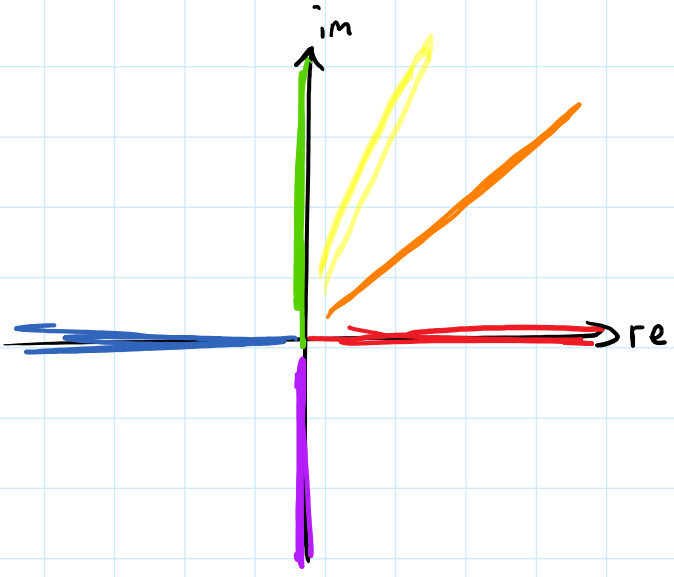
$\zeta(3) = 1.202\ldots$ — closed form?

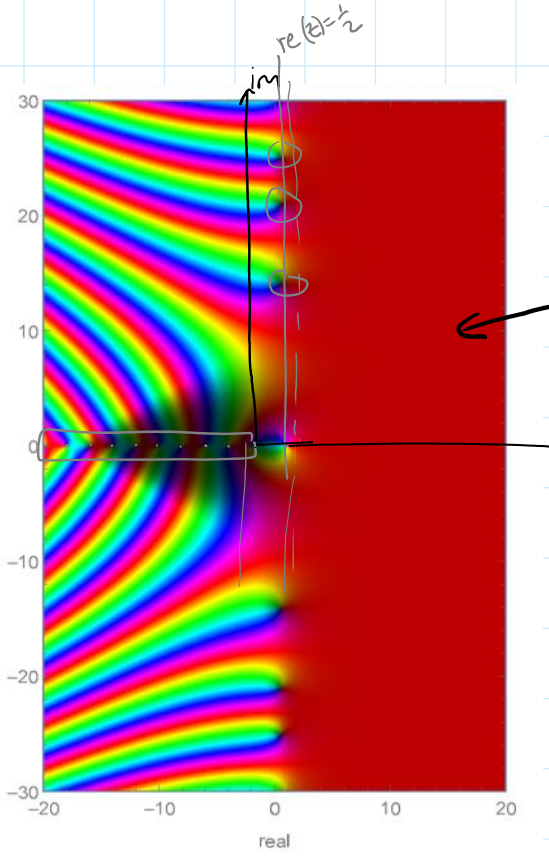
$$\zeta(4) = \frac{\pi^4}{90}$$

$\zeta(5) = 1.03697\ldots$ — closed form?

$\zeta(6) =$

Domain Coloring:





$\zeta(x+iy)$ is positive real

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