# Mills

unaoya

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# Chapter 1

# Mills' constant

**Definition 1.1.** *A positive real number $x$ is Mills if $1 < x$ and for all positive integers $n$, the number $\lfloor x^{3^n} \rfloor$ is prime.*

**Proposition 1.2.** *There exists a Mills number.*

*Proof.* proof □

**Theorem 1.3.** *The Mills' constant is irrational.*

*Proof.* proof □