

**Random is not really  
random**

# „Random“? No, maths!

Game:

Wichmann-Hill-Pseudo-Random-Number-Generator

The Legend of Zelda -  
The Wind Waker

Released 2002  
(Japan) by Nintendo

```
# Seed the state
s1, s2, s3 = 100, 100, 100

# Wichmann-Hill generator
def rng():
    global s1, s2, s3
    s1 = (171 * s1) % 30269
    s2 = (172 * s2) % 30307
    s3 = (170 * s3) % 30323
    return (s1/30269.0 + s2/30307.0 + s3/30323.0) % 1.0
```