

## 0.1 Borel's Normal Number Theorem

Let's introduce this

### Theorem: Normal Number Theorem

$$\lim_{n \rightarrow \infty} P \left[ \omega : \left| \frac{1}{n} \sum_{i=1}^n d_i(\omega) - \frac{1}{2} \right| \geq \varepsilon \right] = 0$$

### Definition: 1.1

The  $n$ th root of unity  $x = 3$  is right. *is* .

### Theorem: 1

- i)  $ab = ac \Rightarrow b = c$
- ii)  $ba = ca \Rightarrow b = c$

### Proof

$$s^{\frac{\Phi + \Omega}{3}}$$

□

### Lemma

blah

### Corollary

aloha