

Übungen zur FTH II WS 19/20

Blatt 9

1. Prove that

$$\Gamma(s) = \lim_{n \rightarrow \infty} \frac{n^s n!}{s(s+1) \cdots (s+n)}$$

whenever $s \neq 0, -1, -2, \dots$

[Hint: Use the product formula for $1/\Gamma$, and the definition of the Euler constant γ .]

2. Prove Theorem 2.4 Chapter 4 in the book by E.M.Stein: Vortrag in den Übungen