1. ☐ Hurwitz theorem (about zeros of uniform limits of analytic functions).
2. ☐ Montel's theorem (locally bounded family of analytic functions is normal).
3. ☐ Riemann mapping theorem (any simply connected open proper subset of $\mathbb{C}$ is biholomorphically equivalent to $\mathbb{C}$).
4. ☐ Weierstrass factorization theorem (analytic functions with prescribed zeros; representation of an analytic function as a product).
5. ☐ Runge's theorem (approximation of analytic functions by rational functions with prescribed poles).
6. ☐ Mittag-Leffler's theorem (existence of meromorphic functions with prescribed poles and prescribed singular parts).
7. ☐ Schwartz reflection principle.
8. ☐ Analytic extension along the path. Monodromy theorem.
9. ☐ Riemann manifolds, classification in terms of the universal cover.
10. ☐ Little Picard theorem (entire function takes all values, possibly with one exception); a version for meromorphic functions.
11. ☐ Great Picard theorem (in any neighborhood of an essential singularity, an analytic function takes all values infinitely many times, possibly with one exception).
12. ☐ Montel-Caratheodori theorem (a family of functions omitting three values in $\bar{\mathbb{C}}$ is normal).
13. ☐ Harmonic functions: relation to analytic functions in simply connected domains, mean value property, maximum principle.
14. ☐ Poisson formula for harmonic functions.
15. ☐ Harnack's inequality, Harnack's theorem for harmonic function.
16. ☐ Jensen's and Poisson-Jensen's formulas.
17. ☐ Hadamard factorization theorem.