(1) Problem 2/page 145;
(2) Problem 5 b), c), f) /page 145;
(3) Problem 9/page 146;
    **Hint:** Show first that what they ask follows from: If \( f \) has essential singularity at \( P \), then for every \( n \)
    \[
    \limsup_{z \to P} |(z - P)^n f(z)| = \infty.
    \]
    Then, work to show this last formulation by contradiction.
(4) Problem 13 b), c), e)/page 147;
(5) Problem 14/page 147;
(6) **Extra credit (10 pts.)** Problem 21/page 148