

MAT334, COMPLEX VARIABLES, SUMMER 2020. PROBLEMS FOR AUGUST 3 – 7

Due Monday, August 10, at 11:59 PM EDT.

1. [15 marks] Evaluate whichever of the integrals from problem 3 of the last assignment you did not do last week.
2. [20 marks] Evaluate the following integral:

$$\int_0^{\infty} \frac{\log x}{(1+x^2)^2} dx,$$

where $\log x$ denotes the usual real-valued logarithm of the positive real number x .