4. Exercises

(c) Show that if |a| < r < |b|, then

$$\int_{\gamma} \frac{1}{(z-a)(z-b)} \, dz = \frac{2\pi i}{a-b},$$

where γ denotes the circle centered at the origin, of radius r, with the positive orientation.

26. Suppose f is continuous in a region Ω . Prove that any two primitives of f (if they exist) differ by a constant.