



Fig. 7.3 (a) Integrating $z^{-1} dz$ from a to b gives $\log b - \log a$. (b) Keep a fixed, and allow b to circle once anticlockwise about the origin, increasing $\log b$ in the answer by $2\pi i$. (c) Then return to a backwards along original route. (d) When the part of the path is cancelled from a , we are left with an anticlockwise closed contour integral $\oint z^{-1} dz = 2\pi i$.