

Problems - Sections 63 - 66

(3) Find the Taylor series for $\frac{1}{z^2}$ centered at $z = 2$.

(6) First show that

$$\frac{1}{z} = \sum_{n=0}^{\infty} (-1)^n (z-1)^n$$

for $|z-1| < 1$. Then use that series to derive the Taylor series for $\text{Log } z$ centered at $z = 1$.