

Problem 13 Sec 59 page 197!

$$\frac{1}{4z - z^2} = \frac{1}{4z} \cdot \frac{1}{1 - \left(\frac{z}{4}\right)} = \frac{1}{4z} \cdot \sum_{m=0}^{\infty} \left(\frac{z}{4}\right)^m =$$

for $|z| < 4$ so that

$$\left|\frac{z}{4}\right| < 1$$

$$= \sum_{m=0}^{\infty} \left(\frac{1}{4}\right)^{m+1} z^{m-1} = \frac{1}{4z} + \sum_{k=0}^{\infty} \frac{z^k}{4^{k+2}}$$

For $m \geq 1$ set
 $k = m - 1$