0.1 Moving between polar and cartesian coordinates

All polar numbers can be shown as Cartesian

$ae^{i\theta} = a(\cos(\theta) + i\sin(\theta))$

$ae^{i\theta} = a\cos(\theta) + ia\sin(\theta)$

$z = a + bi$

$e^{i\theta} =$

$e^x = \sum_{i=0}^{\infty} \frac{x^i}{i!}$