

$$e^z = e^{iz}$$

$$e^{z_1} = e^{z_2} \Leftrightarrow z_1 = z_2 + 2k\pi i$$

$$z = iz + 2k\pi i$$

$$z - iz = 2k\pi i$$

$$z(1-i) = 2k\pi i$$

$$z = \frac{2k\pi i}{1-i}$$

$$\frac{(1+i)2k\pi i}{2} = (1+i)k\pi i$$

$$z = (1+i)k\pi i$$