By Euler's formula:

$$e^{i\theta} = cos(\theta) + i\sin(\theta)$$
$$e^{-i\theta} = cos(\theta) - i\sin(\theta)$$

$$\therefore \sin(\theta) = \frac{e^{i\theta} - e^{-i\theta}}{2i}$$

$$\text{let} \quad \sin(\theta) = x$$
$$2ix = e^{i\theta} - e^{-i\theta}$$
$$2ixe^{i\theta} = (e^{i\theta})^2 - 1$$
$$(e^{i\theta})^2 + (-2ix)e^{i\theta} - 1 = 0$$

$$e^{i\theta} = \frac{-(-2ix) \pm \sqrt{(-2ix)^2 - 4(-1)}}{2} = ix \pm \sqrt{1 - x^2}$$
$$i\theta = \ln(ix \pm \sqrt{1 - x^2})$$
$$\theta = -i\ln(ix \pm \sqrt{1 - x^2})$$

$$\therefore \arcsin(\theta) = -i\ln(i\theta \pm \sqrt{1 - \theta^2})$$