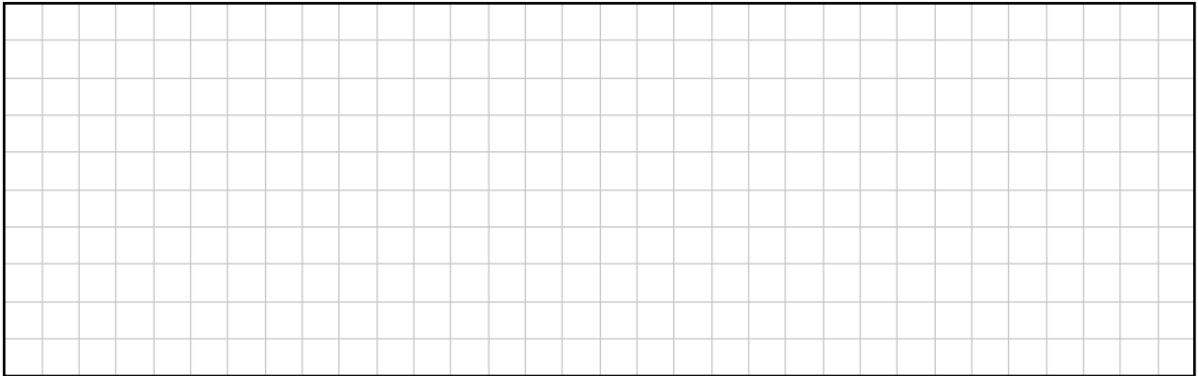


Question

- (a) If $z = 1 + i$ and $w = \frac{1}{z} + i$, find w in the form $a + bi$.



- (b) Show, using De Moivre's Theorem, that $\cos 3\theta = 4\cos^3\theta - 3\cos\theta$.

