Problem 1: Let $z = 2\sqrt{3} - 2i$ and $w = -1 + i$. Find polar forms of zw, z/w and $1/z$ by putting z and w into polar forms.

Problem 2: Use De Moivre's Theorem to find a and b where $a + bi = (1 - \sqrt{3}i)^5$.

Problem 3: Find all solutions of the equation $x^2 + 2x + 5 = 0$.

Problem 4: Find all the cube roots of i and sketch them in the complex plane.

Problem 5: Write the following numbers in the form $a + bi$.

$$e^{i\pi/3} \quad , \quad e^{-i\pi} \quad , \quad e^{2+i\pi}$$