Problem 1. Write the number in polar form with argument between 0 and 2π.

1) $-2 + 2i$

2) $-\sqrt{3} + i$

3) $3 + 3\sqrt{3}i$

Problem 2. Write the number in the form $a + bi$.

1) $e^{-i\pi}$

2) $e^{\pi - i\pi/2}$

3) $e^{i\pi/6}$

4) $e^{\pi/2 - i}$

Problem 3. Evaluate the expression and write your answer in the from $a + bi$.

1) $(4 - 3i) - (-2 + 5i)$

2) $(2 + 3i)(3 - 4i)$

3) $\dfrac{3 + 2i}{2 - i}$

4) i^{99}

Problem 4. Solve the complex equation.

1) $x^2 + 5 = 0.$

2) $2x^2 - 11x + 14 = 0.$

3) $8x^2 + 12x + 5 = 0.$

4) $3x^2 - 2x + 2 = 0.$