1. (1 pt each) Simplify. Write answers in the form $a + bi$, where $a$ and $b$ are real numbers.

(a) $(5 - 7i)^2$

(b) $\frac{3 + 5i}{7 - 2i}$
2. (2 pts) Solve:  \(3x^2 + 3x = -4\)

3. (3 pts) Solve:  \(4x^4 - 27x^2 - 40 = 0\)
4. (3 pts) Solve: \(4x(x - 6) = -37\)

5. (2 pts) Solve: \(3(4x - 5)^2 + 12 = 0\)
6. (3 pts) Solve: \((3x^2 + x)^2 - 5(3x^2 + x) + 4 = 0\)