Use another piece of paper to find ALL EXACT Complex solutions by using a combination of graphing, division, and solving (i.e. Quadratic Formula, Completing the Square, Factoring, or Square Roots). Show your work.

1.
$$x^4 - 4x^3 - 3x^2 - 36x - 108 = 0$$

2.
$$x^5 + 2x^4 - x^3 - 2x^2 - 20x - 40 = 0$$

3.
$$x^3 - 17x^2 + 104x - 238 = 0$$

4.
$$42x^4 + 251x^3 + 203x^2 - 11x - 5 = 0$$