ACMAT117 Fall 2025
Professor Manguba-Glover
Sections 3.2 Classwork (CW 8)   Name: _____

Complete as many of the following problems as you can with your group. You do not have to go in order. Each group will be given a specific problem that they must complete and present to either Professor MG or to Stefanie before they leave.

If **your entire table** finishes early, and you have presented your given problem, you may leave early.

(1) Solve the following:

(a) $x^2 + 13x + 40 = 0$ (c) $-2x^2 = 5x + 3$

(b) $36x^2 - 25 = 0$ (d) $3x^2 - 30x + 75 = 0$

(2) Solve the following:

(a) $x^2 - 7x + 6 = 0$ (c) $3t^2 - 13t + 10 = 0$

(b) $3x^2 - 6x - 72 = 0$ (d) $2x^2 = 8x + 2$

(3) Solve the following:

(a) $8x^2 + 8x - 30 = 0$ (c) $6x^2 = 4 + 5x$

(b) $x^2 - x - 12 = 0$ (d) $5x^2 + 2x + 6 = 0$

Key:

(1) (a) $x = -5, -8$ (2) (a) $x = 1, 6$ (3) (a) $x = -\frac{5}{2}, \frac{3}{2}$

     (b) $x = -\frac{5}{6}, \frac{5}{6}$ (b) $x = 6, -4$ (b) $x = -3, 4$

     (c) $x = -\frac{3}{2}, -1$ (c) $x = \frac{10}{3}, 1$ (c) $x = \frac{4}{3}, -\frac{1}{2}$

     (d) $x = 5$ (d) $2 + \sqrt{5}, 2 - \sqrt{5}$ (d) No real solutions