Chapter 8 Review

1. Solve **graphically** and verify your solution.

a) $y = x^2 + 2x - 2$, $y = -\frac{1}{4}x^2 - \frac{1}{2}x + \frac{7}{4}$

b) $-x^2 - 8x - 2y - 8 = 0$, $3x + y = -4$

2. Solve by **Substitution** and verify your solution.

a) $3x + y = -9$, $4x^2 - x + y = -9$

b) $y - \frac{1}{2}x + 5 = 0$, $y = x^2 + 2x - 15$

c) $-x^2 - 7x - 2y + 2 = 0$, $2x + y = -1$

3. Solve by **Elimination** and verify your solution in part (a) and (c).

a) $-12x^2 + 11y - 9x - 34 = 0$, $y - 3x = 2$

b) $x + 2y = 46$, $x^2 - 3y = 93$

c) $-2x^2 + 3x - 2y + 1 = 0$, $x + 2y - 3 = 0$

4. Solve by **the method of your choice** and verify your solution in parts (a) and (b).

a) $2x^2 - 21x - y + 54 = 0$, $x + y = 4$

b) $-x^2 + 8x + y - 9 = 0$, $-x^2 + 32x + y - 33 = 0$

c) $3x^2 + 4x - y - 8 = 0$, $y + 3 = 2x^2 + 4x$

Answers:

1. a) (-3, 1) and (1, 1) b) (-2, 2) and (0, -4)

2. a) (0, -9) and (1, -12) b) $(^5/_2, {}^{-15}/_4)$ and (–4, –7) c) (-4, 7) and (1, -3)

3. a) (1, 5) b) (12, 17) and (-13.5, 29.75) c) (1, 1)

4. a) (5, -1) b) (1, 2) c) (-2.236, -1.945) and (2.236, 15.943)

Additional Practice: p. 459 # 3, 5, 7a, 10a

Ch. 9 Review

1. Solve algebraically and graphically

a) $0 < 2x^2 - 4x$

b) $0 \leq x^2 - 6x + 5$

solutions: a) $x < 0$ and $x > 2$

b) $x \leq 1$ and $x \geq 5$

Additional: p. 502 # 7

p. 504 # 3, 7.