

Intermediate Algebra

Name: _____

Study Guide 17

Class: _____

Due Date: _____

Score: _____

No Work \Leftrightarrow No Points

Use Pencil Only \Leftrightarrow Be Neat & Organized

1. (4 points) Solve by completing the square method: $2x^2 - 5x = 7$

1. _____

2. (5 points) Solve by using the quadratic formula: $(3x - 2)(2x - 3) = 27$

2. _____

3. Find a quadratic equation with the given solutions below:

(a) (2 points) -5 and $\frac{1}{2}$

(a) _____

(b) (2 points) 4 and $\frac{-2}{3}$

(b) _____

(c) (2 points) $-5 \pm 3i$

(c) _____

(d) (2 points) $2 \pm \sqrt{5}$

(d) _____

4. (3 points) Use the value of the discriminant to discuss the type of solutions for $4x^2 = 5x - 8$.

4. _____

5. (3 points) Use the value of the discriminant to discuss the type of solutions for $9x^2 + 16 = 24x$.

5. _____

6. (4 points) Solve by making a proper substitution: $x - 3\sqrt{x} - 10 = 0$

6. _____

7. (4 points) Solve by making a proper substitution: $(x^2 - 4)^2 - 10(x^2 - 4) + 16 = 0$

7. _____

8. (4 points) Solve by making a proper substitution: $x^4 - 5x^2 - 36 = 0$

8. _____

9. (5 points) Solve by making a proper substitution: $(x - 1)^{2/3} + (x - 1)^{1/3} - 12 = 0$

9. _____

10. (5 points) Solve by making a proper substitution: $6x^{-2} + x^{-1} - 2 = 0$

10. _____

11. (5 points) Solve by making a proper substitution: $12x^4 - 11x^2 + 2 = 0$

11. _____