

Name: \_\_\_\_\_  
MAT1275CO College Algebra and Trigonometry (Section D103)  
Quiz 6 - Take-Home Quiz

**Directions:** Please submit a clean copy of your work with the heading above. Answer each of the following questions clearly and in order. **SHOW ALL OF YOUR WORK.** Illegible answers and answers without work shown will receive no credit. Your final answers should be **BOXED**. All of your answers should fit on a single sheet of paper. Points will be deducted if these instructions are not followed. This quiz is due **Friday, April 12, 2024.**

Final answers should be rationalized and given in standard form.

1. (+2.5 points) Solve by factoring and using the Zero-Product property.

$$(2x - 1)(x^2 - 2x - 48) = 0$$

2. (+2.5 points) Solve using the Square-Root Property.

$$95 - 2x^2 = 14$$

3. (+2.5 points) Solve by completing the square.

$$8y^2 + 4y = 40$$

4. (+2.5 points) Solve using the quadratic formula.

$$\frac{1}{2}a^2 - \frac{2}{3}a = \frac{1}{6}$$