Group AfterQuiz

These are the problems from the quiz (with new numbers) that I noticed people struggling with or asking questions about. Please **do not write** on this paper. Write everything in your notebook (so you have notes to look at when you finish/retake the quiz).

REMEMBER: The goal of group work is that your ENTIRE group understands the problem, not that people just write down the answer. Hold yourselves accountable for your learning.

1. Solve the equation below. Show your steps.
   $3x^2 - 9x - 25 = 0$

2. The equation $-3(x - 4)^2 + k = 23$ has no solutions. What are the possible values of k? Draw a picture to explain your answer.

3. The equation $x^2 + bx - 99 = 0$ has solutions of $x = 9$ and $x = a$. What are the values of a and b?

4. Mr. Maurer shoots a half court shot at the basketball game during halftime. The path of the basketball is represented by the quadratic equation $b(x) = -\frac{1}{20}x^2 + \frac{63}{10}x - 176.4$ where x represents the horizontal distance from the baseline and b(x) represents the height of the basketball.
   a. What is b(0)? What does it represent about the ball?
   b. A high school basketball court is 84 feet long. If Mr. Maurer shoots from the half court line, will he make the basket?