📖 Grade 8 Worksheet: Solving Linear and Quadratic Equations

Name: _____
Date: _____
Instructions: Solve each of the following equations. Show all your steps clearly.

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1. Solve the linear equation:

$3x-7=113x - 7 = 113x-7=11$

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2. Solve the linear equation with variables on both sides:

$2x+5=4x-32x + 5 = 4x - 32x+5=4x-3$

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3. Solve the quadratic equation by factoring:

$x2+5x+6=0x^2 + 5x + 6 = 0x2+5x+6=0$

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4. Solve the quadratic equation using the quadratic formula:

$x2-4x-5=0x^2 - 4x - 5 = 0x2-4x-5=0$

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5. Word Problem – Real-Life Application:

A rectangular garden has an area of 60 square meters. The length of the garden is 4 meters more than its width.
Let xxx be the width of the garden in meters.

a) Write a quadratic equation that models this situation.
b) Solve the equation to find the width and length of the garden.