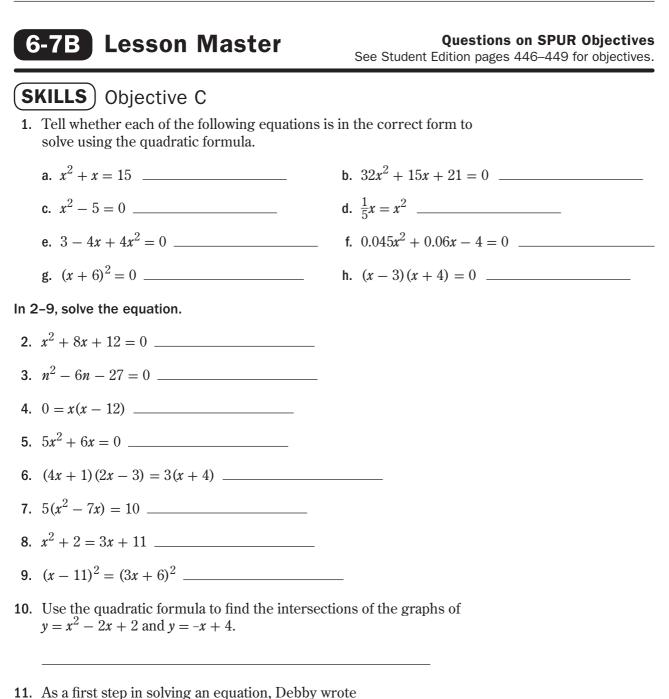
## Name



 $x = \frac{-(-1) \pm \sqrt{(-1)^2 - 4(2)(-7)}}{2(2)}$ . What equation was Debby solving?

Name

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(U	SES) Objective I	
12.	A square and a rectangle have the same area. The length of the rectangle is 8 less than twice the side of the square. The width of the rectangle is 3 less than the side of the square.	
	<b>a</b> . Let <i>x</i> represent the length of the side of the square. Write expressions for the dimensions of the rectangle.	
	Length Width	
	<b>b.</b> Write an equation that represents the situation.	
	<b>c</b> . Find the dimensions of the square and rectangle.	
	Square Rectangle	
13.	Juan hit a fast ball thrown by Liz. Let <i>x</i> be the distance on the ground in feet of the ball from home plate and $h(x)$ be the height in feet of the ball at that distance. Suppose the path of the ball is described by the function $h(x) = -0.006x^2 + 2.5x + 4$ .	
	a. How high was the ball when Juan hit it?	
	b. How far from the plate, along the ground, was the ball when it was the same height at which Juan hit it?	
	<b>c.</b> How far from the plate, along the ground, was the ball when it was 100 feet high?	
	<ul><li>d. The fence is 405 feet away from home plate, and it is 12 feet high. Did the ball go over the fence? Explain your reasoning.</li></ul>	
4.4	A top we shot more that at with the with an initial wells site of 75 <sup>m</sup>	
14.	A toy rocket was shot straight up with an initial velocity of $75 \frac{\text{m}}{\text{sec}}$ . The platform from which the rocket was shot is 2.3 meters high.	
	a. When was the rocket 100 meters above the ground?	
	<b>b</b> . When did the rocket hit the ground?	
	c. Will the rocket ever reach 300 meters? Explain.	