## Booklet for factoring and solving quads by factoring

Page 1: Title

Page 2: Tell the story of Barbra the thief.

Page 3: I spy factoring

Factor the following polynomials. Leave yourself notes about the I spy process. 1)  $4x^2 - 8x$  2)  $12x^{10} - 8x^7$  3)  $-6x^3 + 8x^2 - 10x$ 

1) 
$$4x^2 - 8x$$

Describe the thought process for either X marks the spot or the area model for factoring trinomials

Factor the following polynomials. Leave yourself notes about your thought process. 4)  $x^2 - 9x - 22$  5)  $x^2 + 12x - 45$  6)  $x^2 - 15x + 56$ 

4) 
$$x^2 - 9x - 22$$

6) 
$$x^2 - 15x + 56$$

Describe how zero dominates in the multiply game and how you use it to solve quadratic equations.

Solve the following equations by I spy factoring. 7)  $5x^2 - 10x = 0$  8)  $15x^2 + 20x = 0$ 

7) 
$$5x^2 - 10x = 0$$

8) 
$$15x^2 + 20x = 0$$

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Solve the following polynomials by X marks the spot or area model. 9)  $x^2 - 9x - 70 = 0$  10)  $x^2 + 15x + 50 = 0$ 

9) 
$$x^2 - 9x - 70 = 0$$

$$10) x^2 + 15x + 50 = 0$$