## Factoring and Solving Quadratics Self-Test SOL's A.2c, A.4c

Factor the following polynomials.

1. 
$$25 - y^2$$
 2.  $7x^2 - 7$ 

2. 
$$7x^2 - 7$$

3. 
$$x^2 - 24x + 144$$

4. 
$$6x^2 - 24x + 24$$
 5.  $2y^2 + 7y - 15$ 

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Factor and solve the following.

6. 
$$2x(x+4)=0$$

7. 
$$(x-7)(x-3)=0$$

6. 
$$2x(x + 4) = 0$$
 7.  $(x - 7)(x - 3) = 0$  8.  $(y + 2)(3y + 5) = 0$ 

9. 
$$x^2 + 9 = 6x$$
 10.  $x^2 - 9 = 0$  11.  $x^2 - 6x = 0$ 

10. 
$$x^2 - 9 = 0$$

11. 
$$x^2 - 6x = 0$$

12. 
$$4s^2 = 36s$$

12. 
$$4s^2 = 36s$$
 13.  $2m^2 + 13m = 24$  14.  $x^2 - 6x - 7 = 0$ 

14. 
$$x^2 - 6x - 7 = 0$$

15. 
$$6x^3 + 29x^2 + 28x = 0$$

16. Define a variable and show your equation to solve the following: Find two consecutive odd integers whose product is 143.

17. Use your calculator to find the solutions to  $h^3 + h^2 - 4h - 4 = 0$ . Make a sketch of the graph below.