

Review

- Solving Quadratic Equations algebraically
 - factor if possible
 - quadratic formula

} must be in standard form + equal to zero
 $ax^2 + bx + c = 0$

(§7-5 and §7-7)

leave answers in simplest radical form (exact)

- Vertex form (§7-6)

$$y = a(x-h)^2 + k$$

(h, k) is vertex

graph \Leftrightarrow equation

- (h, k)
- y-intercept
- matching point to y-intercept
- opens up/down

(h, k) and (x, y)
 Sub into vertex form to find a . Write final eq.

- application problems (§7-8)

- find vertex ?
- find x-intercepts ?
- find equation \Rightarrow

$$\text{factored form } y = a(x-r)(x-s)$$

$$\Rightarrow \text{vertex form } y = a(x-h)^2 + k$$