**4.3 – SOLVING A QUADRATIC EQUATION IN VERTEX FORM**

Solve:

The equation has 2 solutions if   
 1 solution (double) if

No real solution if

If a quadratic equation is in vertex form, we use the previous property to determine the solutions:

Applications: Solve



Note: Some quadratic equations can’t be factored. It doesn’t mean that they don’t have solutions, but that the solutions aren’t rational…   
It is always possible to write a quadratic expression in vertex form. The equation will have 2 solutions if the perfect square equals a positive number, 1 solutions if it equals 0 and no solution if it equals a negative number.

Examples : Solve  
a) b)

Hwk : p 240 # 3, 4, 6, 8, 9, 11, 13, 14