

Quadratic Formula,  
Discriminant  
(all about solutions) to  
Quadratic Equation)

Always:  $ax^2 + bx + c = 0$

2 kinds of question!  
make sure you answer the  
one asked 😊

① solve (get  $x = \underline{\quad}$   $x = \underline{\quad}$ )  
Quadratic Formula

② what kind of solutions  
are there?

Discriminant  $b^2 - 4ac$

$$Q.F. \quad x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Discriminant:  $b^2 - 4ac$

$d = 0$       1 <sup>real</sup> solution

$d > 0$       2 real solutions

$d < 0$       2 complex solutions  
(no real)