Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples

THE QUADRATIC FORMULA

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

The quadratic formula is another method to use to solve a quadratic equation. Solve the equation below using the quadratic formula.

Steps	
❶ Make sure the equation is set equal to 0 and written in	
❷ Identify	
❸ **Substitute** into the formula	

YOU TRY!

Directions: Solve each equation using the quadratic formula.

1. $x^2 - 8x = 20$ a = b = c =

2. $2x^2 + 7x + 3 = 12$ a = b = c =

3. $3x^2 - 12 = 0$ a = b = c =

4. $x^2 + 15x = 6x$ a = b = c =

5. $-x^2 - 10x - 21 = 0$ a = b = c =

6. $4x^2 + 9x = 12x$ a = b = c =

* "-b" means

not always

+b changes to _____

-b changes to _____

$\pm$ means

7. $x^2+7x=x-10$ a= b= c=

8. $3x^2-5x=4-3x^2$ a= b= c=

Directions: Solve each equation using the quadratic formula.

Round any decimals to 1 plac

IRRATIONAL SOLUTIONS

SPECIAL CASE

- where discrimant is _____,

Q.F. in calc will say

_____

because there is _____.

The parabola does _____ hit the _____.

9. $x^2+4x+1=0$

a=1
b=
c=

10. $-x^2+2x+7=0$

a=
b=
c=

11. $x^2+x+9=20$

a=
b=
c=

12. $4x^2-7x=+2$

a=
b=
c=

13. $x^2+3=8x-x^2$

a=
b=
c=

14. $3x^2+6x=12$

a=
b=
c=