SECTION 5-4

EXERCISE A

For each of the following quadratic equations, find…

a) the discriminant (remember the discriminant is just the inside part of the square root)
b) using the discriminant describe the number and type of roots (1-rational, 2-rational, 2-irrational, 2-imaginary)
c) the exact solutions using the quadratic formula: $\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

1) $8x^2 + 18x - 5 = 0$

2) $x^2 + 8x = 0$

3) $4x^2 + 4x + 1 = 0$

4) $x^2 + 6x + 9 = 0$

5) $2x^2 - 4x + 1 = 0$

6) $x^2 - 2x = 2$

7) $x^2 + 3x + 8 = 5$

8) $4x^2 + 20x + 25 = -2$

EXERCISE B

For each of the following quadratic equations, find…

a) the discriminant (remember the discriminant is just the inside part of the square root)
b) using the discriminant describe the number and type of roots (1-rational, 2-rational, 2-irrational, 2-imaginary)
c) the exact solutions using the quadratic formula: $\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

9) $-3x^2 - 5x + 2 = 0$

10) $25 + 4x^2 = -20x$

11) $x^2 - 16x + 4 = 0$

12) $2x - 5 = -x^2$

13) $x^2 - x + 6 = 0$

14) $7x^2 + 3 = 0$

Solve the following quadratic equations with ***any*** of the methods already discussed.

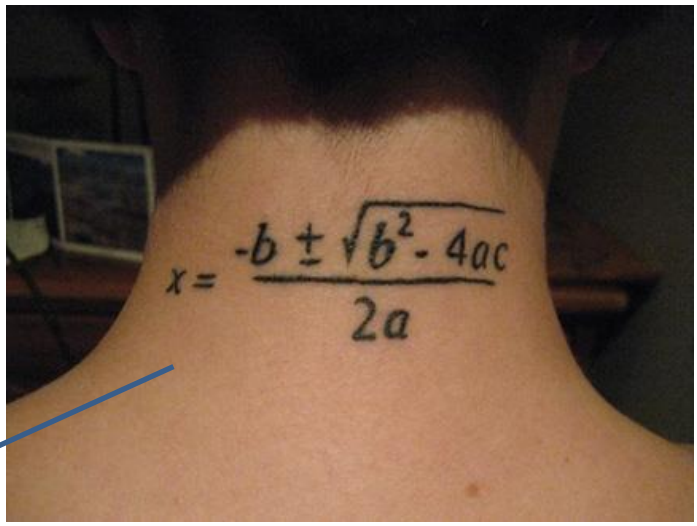
15) $x^2 - 30x - 64 = 0$

16) $x^2 - 4x + 7 = 0$

17) $4x^2 - 8 = 0$

EXERCISE C

18) Find the exact solutions for $2ix^2 - 3ix - 5i = 0$ by using the Quadratic Formula. Remember, a, b & c are the coefficients (or whatever precedes the variable).



Real men have meaningful tattoos!

ANSWERS:

1a)	484	7a)	-3	13a)	-23
b)	2-rational	b)	2-imaginary	b)	2-imaginary
c)	1/4, -5/2	c)	$\frac{-3 \pm i\sqrt{3}}{2}$	c)	$\frac{1 \pm i\sqrt{23}}{2}$
3a)	0	9a)	49	15)	-2, 32
b)	1-rational	b)	2-rational	17)	$\pm\sqrt{2}$
c)	-1/2	c)	-2, 1/3		
5a)	8	11a)	240		
b)	2-irrational	b)	2-irrational		
c)	$\frac{2 \pm \sqrt{2}}{2}$	c)	$8 \pm 2\sqrt{15}$		