Integrated Math 3
Algebra Pre-requisites
Day 5 Quadratic Formula

Name _____
Date _____
Period _____

1. Simplify each expression.

a. $\dfrac{4-\sqrt{(-4)^2-4(2)(-3)}}{2(2)}$

b. $\dfrac{-8-\sqrt{(8)^2-4(10)(2)}}{2(10)}$

c. $\sqrt{-80}$

d. $\sqrt{200}$

2. Solve the equation by using the quadratic formula. Remember the quadratic formula is:

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

a. $x^2+6x+8=0$

b. Now solve the equation by factoring.

3. Solve the equation $2x^2 + 6x + 1 = 0$ by using the quadratic formula. Simplify the solution as much as possible.

4. The zeros of a function are also the x-intercepts of the graph of the function. The value of y is always zero along the x-axis. Find the zeros of the function $g(x) = 8x^2 + 2x - 3$ by setting g(x)=0 , then:

a. solve the equation using the quadratic formula

b. check your answer to part a by using graphing technology

c. write the function as two factors.

5. Find the zero of the function $h(t) = 3x^2 - 4x + 5$:

a. by using the quadratic formula

c. Check your answer to part a using graphing technology. What do you notice? Explain your reasoning.