## Lesson Plan

Lesson: <u>6 - 3</u>

Grade 10 Academic Math

Unit: <u>Quadratic Equations</u>

Topic: <u>the Discriminant</u>

## homework check: Principles of Mathematics 10 p. 343 # 3 – 5, 8, 9, 13, 19 (no calculator approximations – reduce to show exact values)

## **note:** <u>the Discriminant</u>

The discriminant is the value of the expression  $b^2 - 4ac$  which is the portion found under the root sign in the quadratic formula. We use the capitol letter D to stand for the value of the discriminant. Remember that you cannot take the square root of any negative numbers. This will have implications as you work through the investigation. Any radical that cannot be evaluated yields only non-real roots.

The discriminant value has specific meaning when connecting the graph of a quadratic function and the roots or x intercepts of the quadratic equation. The Discriminant Investigation will lead you through and investigation to the connection between roots, graphs and discriminant values.

## **i** homework assignment: <u>Discriminant Investigation</u> – due tomorrow