## Hattiesburg Public School District Algebra I Mathematics Units 2015-2016

## Unit 8: Quadratic Equation

## Content Standards

## Major Standards

A-REI.B. 4 Solve quadratic equation in one variable.
a. Use the method of completing the square to transform any quadratic equation in $x$ into an equation of the form $(x-p)^{2}=q$ that has the same solutions. Derive the quadratic formula from this form.
b. Solve quadratic equations by inspection (e.g., for $x^{2}=49$ ), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm b i$ for real numbers $a$ and $b$.
A-SSE.B. 3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.*
b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.
A-CED.A. 1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*
Supporting Standards

## Additional Standards

Pre-requisite Standards

Time Frame: 3 Weeks (Jan 5-22)

## Standards for Mathematical Practice

(1) Make sense of problems and persevere in solving them.
(2) Reason abstractly and quantitatively.
(3) Construct viable arguments and critique the reasoning of others.
(4) Model with mathematics.
(5) Use appropriate tools strategically.
(6) Attend to precision.
(7) Look for and make use of structure.
(8) Look for and express regularity in repeated reasoning.
**NOTE: MPs taken from the FlipBook by McGraw Hill. **

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