

Topic: Unit 9: Quadratic Functions

Subject(s):

Days: 9

Grade(s):

Key Learning: Quadratic functions may be solved in a variety of ways to solve real world scenarios.

Simplifying radical expressions using basic operations associated with real world problems.



Unit Essential Question(s):

How are quadratic equations used in real world situations?

How to simplify radical equations associated with real world problems?



Concept:
GRAPHING

Students will graph quadratic equations using graphing calculators and by hand.



Lesson Essential Question(s):
How do you graph a quadratic equation and why is the shape parabolic? (A)



Vocabulary:
roots, slope, parabola, maximum, minimum, axis of symmetry, non linear functions, vertex

Concept:
ALGEBRAIC

Students will be able to solve problems using the quadratic formula.



Lesson Essential Question(s):
How do you solve problems using the quadratic formula? (A)

How do you simplify radical expressions? (A)

How do you use basic arithmetic operations with radical expressions? (A)



Vocabulary:
quadratic formula, standard form of quadratic equations, radical expressions, rational denominator, radicands

Additional Information:
Sections 9.1 / 9.5/ 10.2/ 10.3

Attached Document(s):

Vocab Report for Topic: Unit 9: Quadratic Functions
Subject(s):

Days: 9
Grade(s):

Concept: GRAPHING

roots - x-intercepts of the graph
slope - rate of change between two points
parabola - The u or n shape of a graph of a quadratic function
maximum -
minimum -
axis of symmetry -
non linear functions -
vertex -

Concept: ALGEBRAIC

quadratic formula - $-b \pm \sqrt{b^2 - 4ac}$ all divided by $2a$
standard form of quadratic equations - $ax^2 + bx + c$
radical expressions, rational denominator -
radicands -