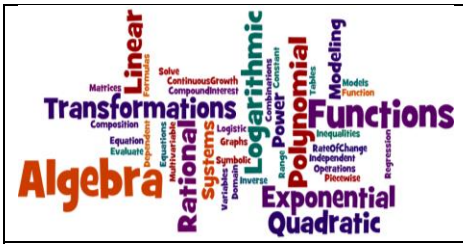

Chapter 4:

QUADRATIC FUNCTIONS

Cornell Notes/Summary Sheet

Name: _____

Period: _____

Section 4.1 – Big Ideas	**Your Notes**
• Increasing/decreasing intervals • First differences vs. second differences • Concavity • Linear or quadratic?	
Section 4.2 – Big Ideas	**Your Notes**
• Vertical motion models • Maximum & minimum values	

COMPLETING THE SQUARE

$$3x^2 + 12x + 13$$

(1) factor out the quadratic coefficient from the first 2 terms

$$3(x^2 + 4x + \_\_\_) + 13 - \_\_\_$$

(5) multiply by a

$$3(x^2 + 4x + \_\_\_) + 13 - \_\_\_$$

(2) half of the middle

(4) square it

$$3(x \quad)^2$$

(3) write it down

(6) subtract & simplify

REFER TO MY WEBSITE FOR ADDITIONAL RESOURCES: WWW.SCHULTZJEN.WEEBLY.COM

Section 4.3– Big Ideas	**Your Notes**
• Standard form • Factored/intercept form • Vertex form • Direction of opening • Axis of symmetry • Vertex • x-intercepts/zeros • y-intercept • Domain & range • Maximum & minimum values • Increasing & decreasing intervals • Completing the square (*on back*)	