Name: _____ Date: _____

Unit 4 Project Checklist

My object that can be enhanced by nanotechnology is _____.

Chapter 8 Task
I Need To ...
❐ explain how the object will be enhanced by nanotechnology in its construction
❐ create a new design of my object, which must include intersections of parabolic and linear design curves
❐ keep a well-documented record of the evolution of my design
❐ select a part of my design that involves an intersection of parabolas or an intersection of parabolas and lines
❐ determine model equations for each function involved in this part of my design
❐ use the equations to determine any points of intersection
❐ explain the relevance of the points of intersection to the design of the object
❐ explain why it is helpful to have model equations, and to know the coordinates of the points of intersection

Chapter 9 Task
I Need To ...
❐ explain why it is reasonable to represent the costs of nanotechnology by a parabola that opens downward
❐ explain the meaning and significance of the point labelled B on the given graph
❐ determine the boundaries of regions A and C on the given graph, write the inequalities that determine regions A and C, and explain what the points in regions A and C represent
❐ explain why regions A and C on the given graph are important to me as a designer and manufacturer
❐ explain how the graph and production plans will change if the costs of nanotechnology decrease from their peak more quickly than anticipated
❐ determine if it is reasonable for the graph representing nanotechnology's cost to have an x-intercept, and justify my answer
❐ decide whether cost is the only factor I would address when considering using nanotechnology to make my product, and explain my answer

Unit 4 Project Wrap-Up
My Presentation Includes ...
❐ a display of my finished product in a format of my choice, for a gallery walk
❐ a visual representation of the evolution of my design
❐ the equations used when designing my project, as well as the necessary points of intersection
❐ answers to the Chapter 9 Task