

Name \_\_\_\_\_

## Graphing Quadratic Functions Dinner Menu

### Appetizer (Everyone Shares)



5 Calories

- Using a sheet of graph paper, graph the parent quadratic function:
  - a) Find the vertex.
  - b) Make an input-output table.
  - c) Graph the function.

### Entrée (Select One)



25 Calories

- Explain to “Absent Abby” (in written format with pictures, equations, graphs, and words) how to write an equation of quadratic graph and how to move from standard form to vertex form.
- Explain to “Absent Alan” (in written format with pictures, equations, graphs, and words) how to transform the graph of  $f(x) = x^2$  (include the following vocabulary: vertical shifts, horizontal shifts, reflection over the  $x$ -axis, vertical stretch, vertical shrink).

### Side Dishes (Select at Least Two)



20 Calories

- Compare and contrast  $f(x) = x^2$  and  $g(x) = -(x - 1)^2 + 2$ . Include all vocabulary associated with the two graphs.
- Create personal flashcards of all essential vocabulary associated with quadratic equations.
- Create five quadratic graphs other than the parent function, and write the corresponding equations for each function.

### Dessert (Optional)



(No calories but 5 extra points)

- Create a scrapbook or collage of quadratic functions as seen as in the real world. (i.e. nature, architecture, optics, etc...)