Name: _____

Score: _____ / _____

Part 1

The scenario below is used for the following questions.

Suppose you wanted to create a computer program that determines how many and what type of coin denominations should be given to customers. The possible coin denominations are 1 cent, 5 cents, 10 cents, and 25 cents. For example, you determine that a customer must be returned 84 cents. Your algorithm might return something like this:

84 cents -> 25 cents, 25 cents, 25 cents, 5 cents, 1 cent, 1 cent, 1 cent, 1 cent

Or it could return something like this:

84 cents -> (3) 25 cents, (0) 10 cents, (1) 5 cents, (4) 1 cent

Design, but do not code, an algorithm that determines this information. List the steps your algorithm would perform.

Answer Point Value: 90.0 points
Model Short Answer: --------

"Run" your algorithm on the following example: 39 cents. Determine what coins will be returned.

Answer Point Value: 10.0 points
Model Short Answer: --------