Quadratics Test Review **Name:**

Calculator

1) The table shows the data that represents the height of a ball thrown by a shot-putter as it travels a distance of x meters.

Distance (m)	Height (m)
7	8
20	15
33	24
47	26
60	24
67	21

Define variables

x = y=

a) Find a quadratic model f(x) for this data.

b) Find the height of the ball if it travels a distance of 55 meters.

c) Find the distance the ball traveled when it's at a height of 20 meters.

2) The shape of an arch can be modeled by the equation $h(x) = -.025x^2 + 2x$, where h(x) represents the height of the arch and x represents the distance from one end to the other. (round to 3 decimals)

Define variables. x= y =

a) What is the width of the arch?

b) What is the maximum height of the arch?

c) What is the reasonable domain and range?