Alg 2 Quadratics Test Review Name_____Hr__

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 2 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?

3) Use the three different functions given in different forms to answer the following questions:

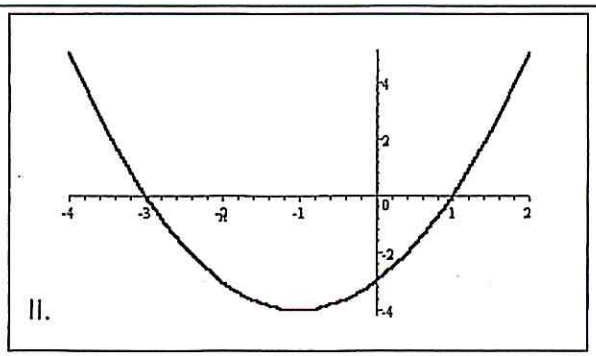
a) Find the vertex for each.

b) Is the vertex a max or a min?

c) Which has the least (smallest) min?

I. $f(x) = 2x^2 - 8x + 6$

II.



III.

X	Y
-7	5
-6	0
-5	-3
-4	-4
-3	-3
-2	0
-1	5
0	12
1	21