

# **MCR 3U Chapter 1 Test**

**September 28, 2010**

**Mr. Oldridge**

**Name:** \_\_\_\_\_

1. Find the co-ordinates of the vertex of these parabolas:

a)  $y = x^2 + 6x + 11$

b)  $y = -2x^2 + 16x - 7$

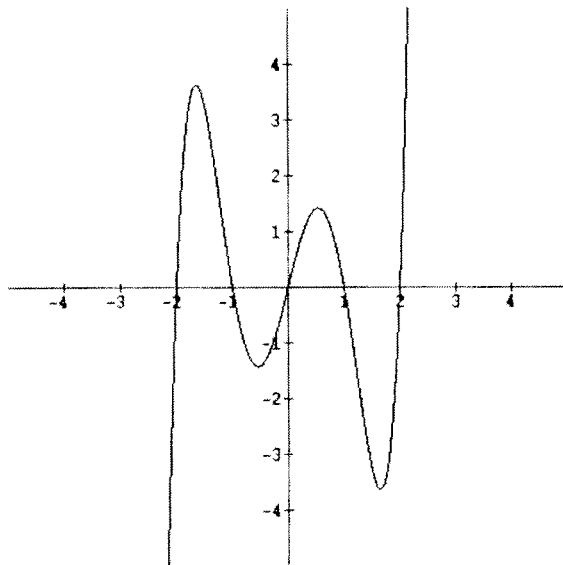
2. Please determine where these parabolas intersect the x-axis:

a)  $f(x) = x^2 - 2x - 35$

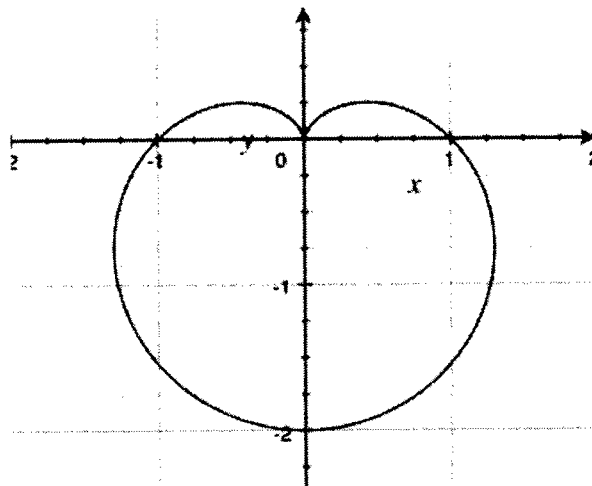
b)  $h(x) = 17.3x^2 + 3.2x - 19.4$

3. Find the domain and range of the following functions:

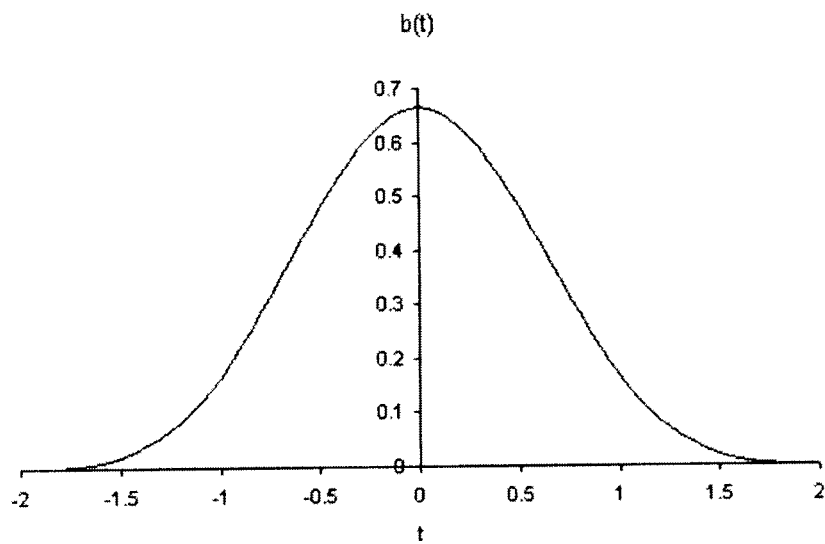
a)



b)



c)



4.

a) Is the graph in 3(a) a “function”? How do you know?

b) Is the graph in 3(b) a “function”? How do you know?

c) Is the graph in 3(c) a “function”? How do you know?

7. HOW MANY x-intercepts do each of the following function have? You do not have to state what the x-intercepts are.

a)  $9x^2 - 2x + 15 = 0$

b)  $-9x^2 + 6x - 1 = 0$

c)  $x^2 + 1 = 0$

d)  $x^2 - 2x + 1 = 0$

