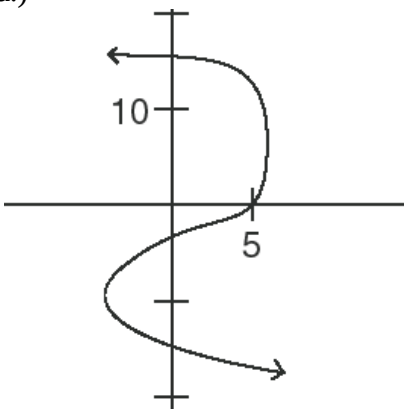
Investigating functions NAME:

This worksheet will help us practice the basic idea of a function and functional notation.

1. For each of the following graphs or equations, tell whether or not the relationship is a function. If it is **not** a function, give an x value that has more than one y value. Also, tell what those y values are (approximately, if need be) and show the points on the graph (if there is a graph).

<table>
<tr>
<td>a.)
 
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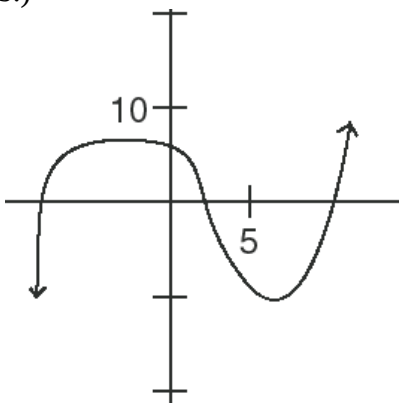
<td>b.)
 
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<td>c.) $y+7=x^2-3$</td>
<td>d.) $y^2=x-8$</td>
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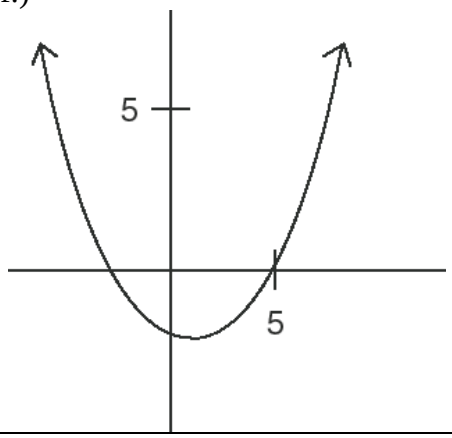
<tr>
<td>e.) $y=4x^2-3x+7$</td>
<td>f.)
 
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2. For each of the following functions, use functional notation to find the desired values. Circle and label your final answers.

a.) $f(x) = \frac{x+3}{2}$; Find $f(-3)$, $f(5)$, and $f(10)$.

b.) $g(x) = 4x^3 - 3x^2 + 6x - 4$; Find $g(-2)$, $g(0)$, and $g(1)$.

c.) $h(t) = 3t^2 + 2t - 1$; Find $h(0)$, $h(-3)$, and $h(x+1)$.