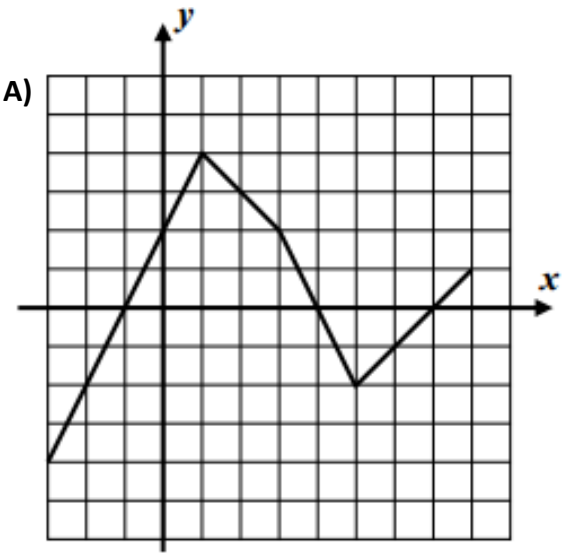
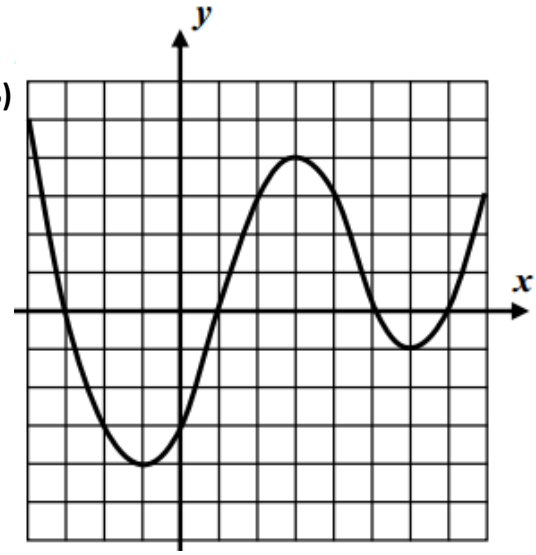
Essential Question: How do we evaluate functions using a graph?

Do Now: Determine if each graph below is a function. Be ready to justify your response.

A)

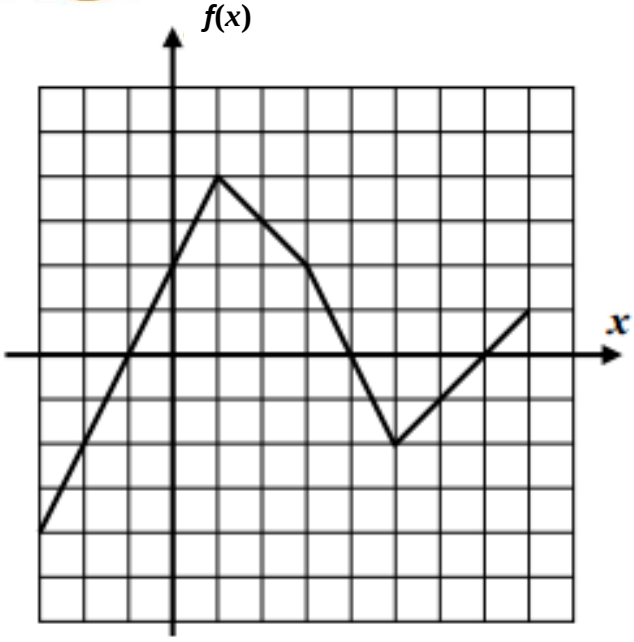


B)



Analyzing Graphs of Functions using Function Notation

Let's take a closer look at the graphs from the Do Now and complete a – e below.



The function **y = *f*(x)** is defined by the accompanying graph.

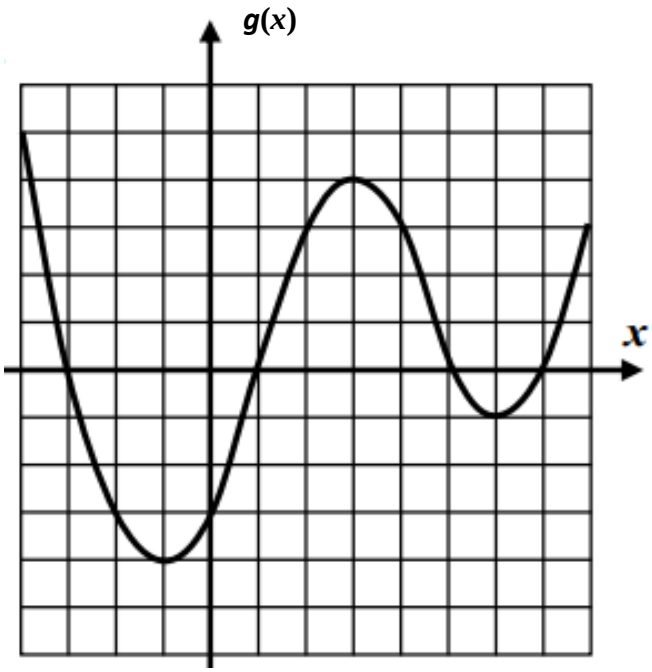
a) Find *f*(5)

b) Find *f*(-3)

c) Find the value of x when *f*(x) = 4

d) Find the values of x when *f*(x) = 2

e) Find the values of x when *f*(x) = 0



The function **y = *g*(x)** is defined by the accompanying graph.

a) Find $g(2)$

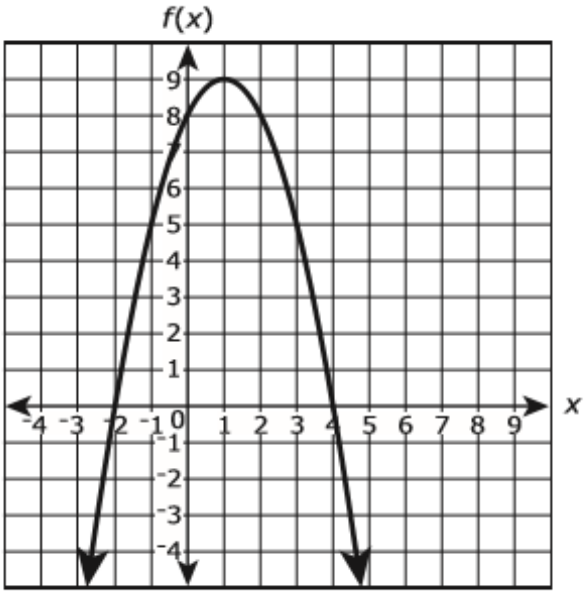
b) Find $g(6)$

c) Find $g(0)$

d) Find the value of x when $g(x) = -4$

e) For what values of x is $g(x) = 0$?

The figure below shows the graph of the function **y = *f*(x)**. The function ***h*** is defined by ***h*(x) = -3x + 2**. Which statements below are true? *Select all that apply*. Justify your response.



A. $f(-2)$ is greater than $h(-2)$

B. $f(0)$ is greater than $h(0)$

C. $f(1)$ is less than $h(1)$

D. When $x = -1$, $f(x) = h(x)$.