Math 2
Module 0, Day 4

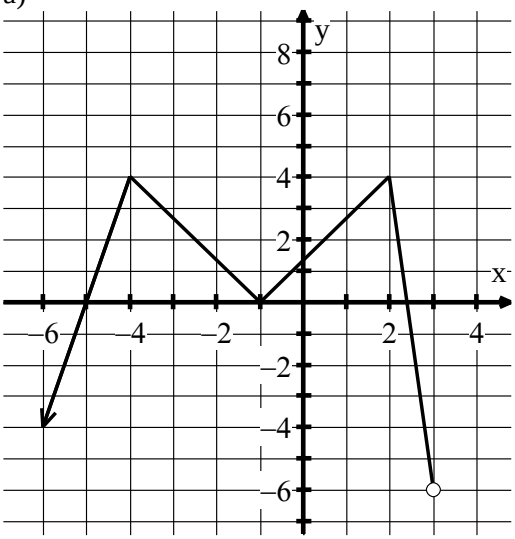
Name: _____
Date: _____ Period: ____

Practice

Show all your work and reasoning. Use a pencil and highlight your answers.

1. Answer the following given each graph.

a)



a) Function? YES OR NO

b) Discrete or Continuous?

c) Minimum value:

d) Maximum value:

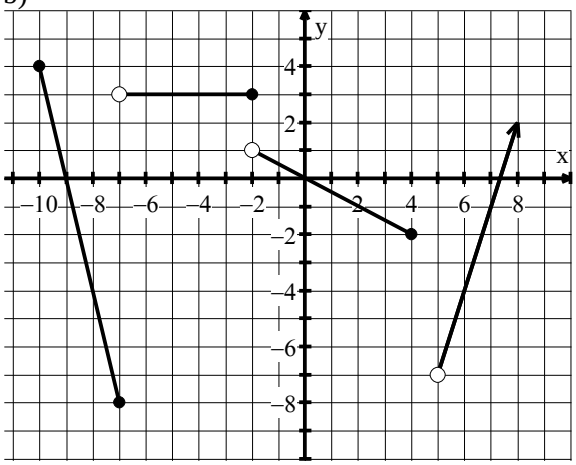
e) Domain:

f) Range:

g) Identify any increasing intervals and their rates of change.

h) Identify any decreasing intervals and their rates of change.

b)



a) Function? YES OR NO

b) Discrete or Continuous?

c) Minimum value:

d) Maximum value:

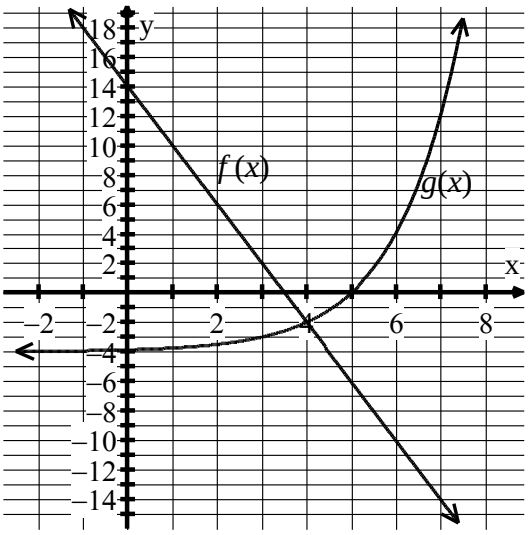
e) Domain:

f) Range:

g) Identify any increasing intervals and their rates of change.

h) Identify any decreasing intervals and their rates of change.

2. Answer the following given the functions $f(x) = -4x + 14$ and $g(x) = 2^{x-3} - 4$.



a) Where is $f(x) = g(x)$?

b) Where is $f(x) < g(x)$?

c) Where is $g(x) < f(x)$?

d) Where is $f(x) = 6$?

e) Where is $g(x) = 4$?

f) What is $f(1) - g(3)$?

g) Find an interval on the exponential curve that has the same steepness as the line.

h) Identify the interval where $g(x)$ is changing faster (steeper) than $f(x)$.

i) Identify the interval where $f(x)$ is changing faster (steeper) than $g(x)$.

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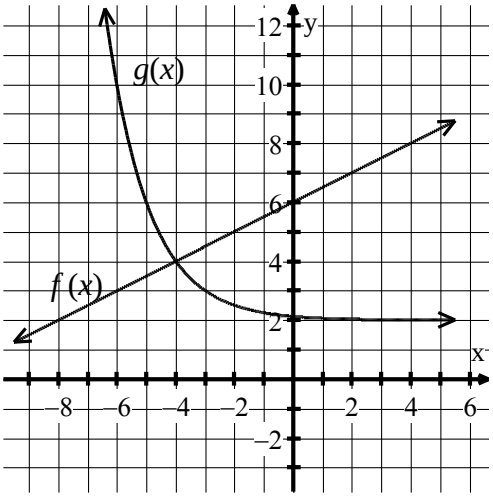
3. Answer the following given the functions $f(x) = 0.5x + 6$ and $g(x) = 0.5^{x+3} + 2$.



a) Where is $f(x) = g(x)$?

b) Where is $f(x) > g(x)$?

c) Where is $g(x) > f(x)$?

d) Where is $f(x) = 6$?

e) Where is $g(x) = 3$?

f) What is $f(-8) + g(-5)$?

g) Find an interval on the exponential curve that has the same steepness as the line.

h) Identify the interval where $g(x)$ is changing faster (steeper)than $f(x)$.

i) Identify the interval where $f(x)$ is changing faster (steeper) than $g(x)$.