

NAME:

DATE:

A2.Q1.BERMELLEEMBO:

FUNCTIONS

(DAY F3)

MASTERY PRACTICE

#1. Consider the function $f(x) = \begin{cases} x+3 & \text{if } x \geq 5 \\ x^2 - 16 & \text{if } x < 5 \end{cases}$

Evaluate each A - F

A. $f(3)$

B. $f(8)$

C. $f(-7)$

D. $f(-4)$

E. $f(-2)$

F. $f(5)$

G. Find the “y-intercept”. Show the function notation that leads to this answer.

H. Is $x = -3$ a zero of the function? Show.

I. Is $x = 4$ also a zero of the function? Show.

#2. Consider the function $g(x) = \begin{cases} 2-x & \text{if } x > 0 \\ 4-5x^2 & \text{if } x \leq 0 \end{cases}$

Evaluate each A - F

A. $g(3)$

B. $g(8)$

C. $g(-2)$

D. $g(-1)$

E. $g(1)$

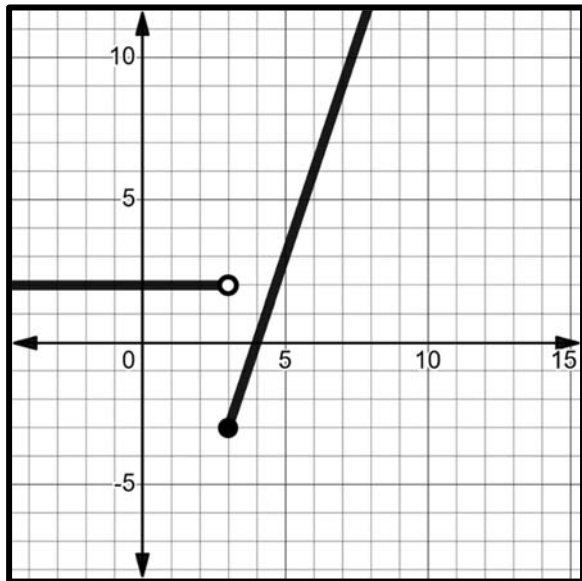
F. $g(10)$

G. Find the “y-intercept”. Show the function notation that leads to this answer.

H. Is $x = 2$ a zero of the function? Show.

I. Is $x = 6$ a zero of the function? Show.

#3. Consider the graph of the function $y = f(x)$ shown below.



Evaluate each A - F

A. $f(3)$

B. $f(7)$

C. $f(1)$

D. $f(-4)$

E. $f(-2)$

F. $f(5)$

G. Find the “y-intercept”. Show the function notation that leads to this answer.

H. Find the zero of the function. Show the function notation that leads to this answer.

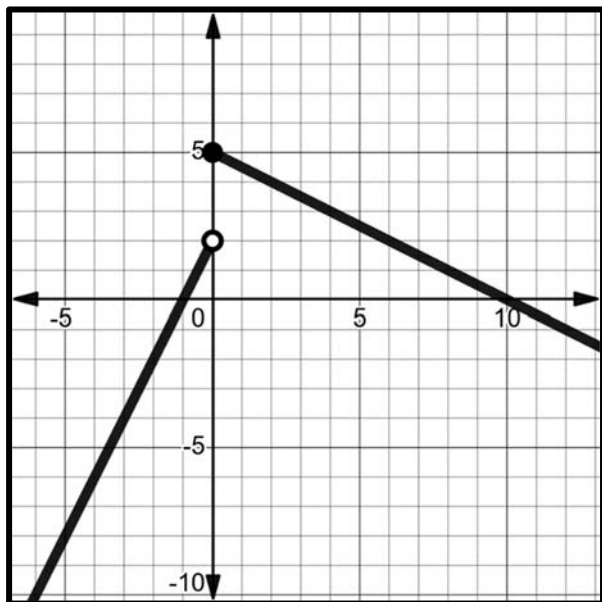
I. If $f(x) = 12$ what is the values of x ? Support with notation.

J. The function is decreasing on what interval?

K. The function is constant on what interval?

L. The function is increasing on what interval?

#4. Consider the graph of the function $y = g(x)$ shown below.



Evaluate each A - F

A. $g(2)$

B. $g(8)$

C. $g(-5)$

D. $g(-4)$

E. $g(-2)$

F. $g(6)$

G. Find the “y-intercept”. Show the function notation that leads to this answer.

H. Find the zeros of the function. Show the function notation that leads to this answer.

I. If $g(x) = -4$ what is the values of x ? Support with notation.

J. The function is decreasing on what interval?

K. The function is constant on what interval?

L. The function is increasing on what interval?