

Name:

QUIZ – MATH GRADE 10

1. (40%) Given the Function:

a. (5%) State its domain: _____

b. (5%) State its Range: _____

c. (4%) $f(x) = 0$, $x =$ _____

d. (2%) $f(0) =$ _____

e. (2%) $f(0.9) =$ _____

f. (3%) $f(-0.5) =$ _____ $= f(\text{ }) = f(\text{ })$

g. (3%) $f(x) = -2$, $x =$ _____

h. (2%) $f(2.1) < 0$ True/False

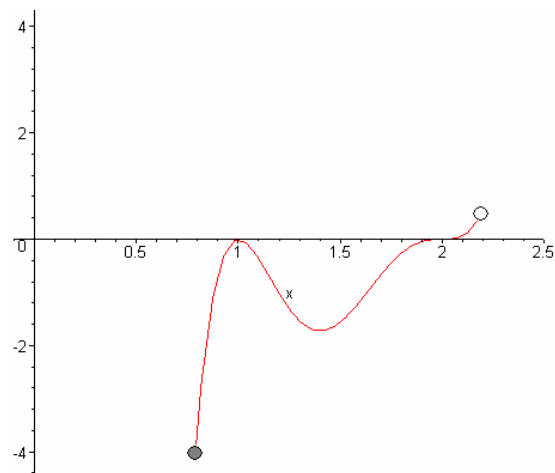
i. (2%) $f(0.8) < f(0.9)$ True/False

j. (3%) Where is the function increasing? _____

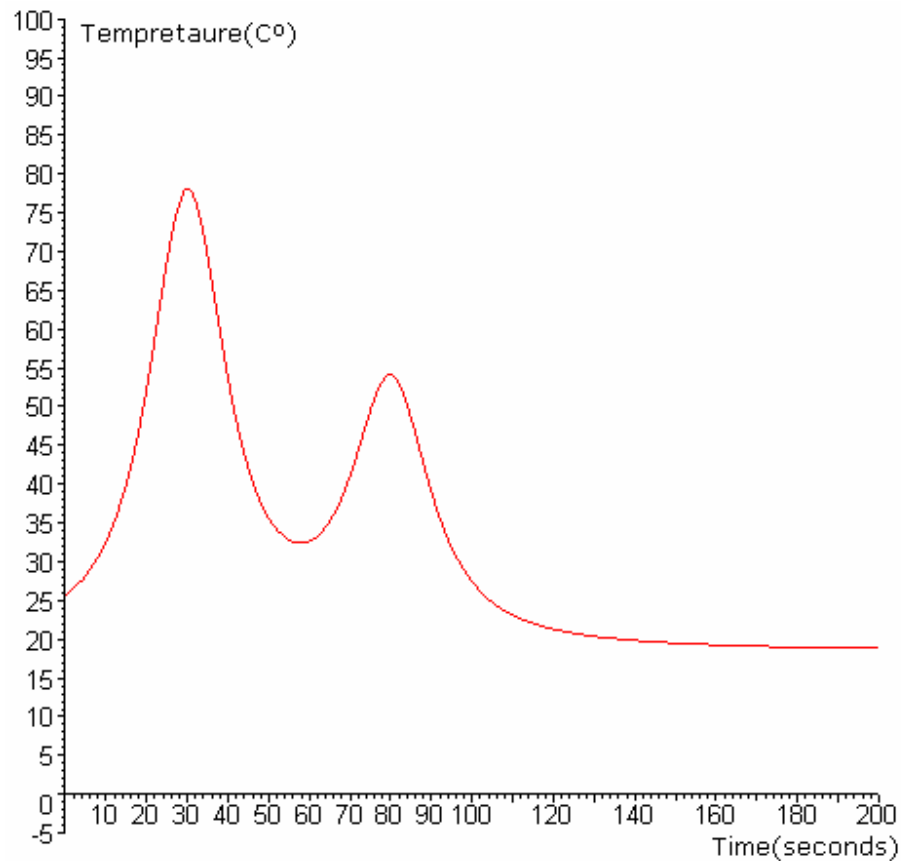
k. (3%) Where is the function decreasing? _____

l. (3%) Where is the function stationary? _____

m. (3%) Is this function one to one? Many to one? Explain.



2. (40%) Given the Function describing the temperature of a cup of coffee that was heated in a microwave. Fill the blanks.



- (5%) State the observed domain: _____
- (5%) State the observed Range: _____
- (2%) How many times was the coffee heated? _____
- (5%) What was the initial temperature of the coffee? _____
- (3%) $\text{Temp}(t) = 30^\circ$, $t =$ _____
- (5%) When does this function decrease? _____
- (5%) What is the maximum temperature of the coffee? _____ when was it reached? _____
- (5%) During the first 100 seconds, when was the function stationary? _____
- (5%) Write down the room temperature _____

3. (20%) Write down a relation that is a decreasing function in the following form, make sure to choose a relation you may represent using in a graph:

Variable: _____ units (_____) \rightarrow Variable: _____ units (_____)

Graph the relation on the following graph:

