

Name: _____

MATH

1. (60%) Given the Function:

a. (5%) State its domain: _____

b. (5%) State its Range: _____

c. (5%) $f(x) = 0$, $x =$ _____

d. (5%) $f(0) =$ _____

e. (5%) $f(0.9) =$ _____

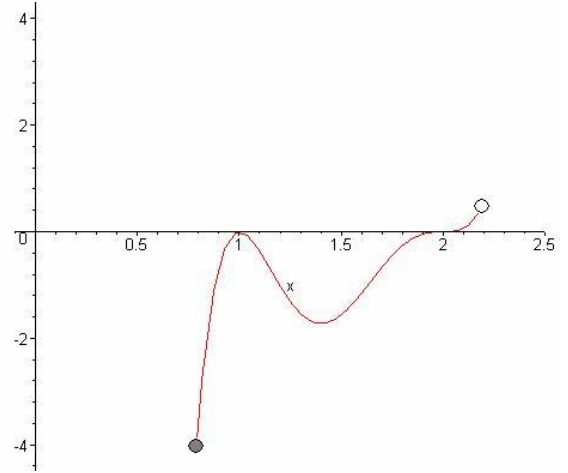
f. (5%) $f(x) = -2$, $x =$ _____

g. (5%) $f(2.1) < 0$ True/False

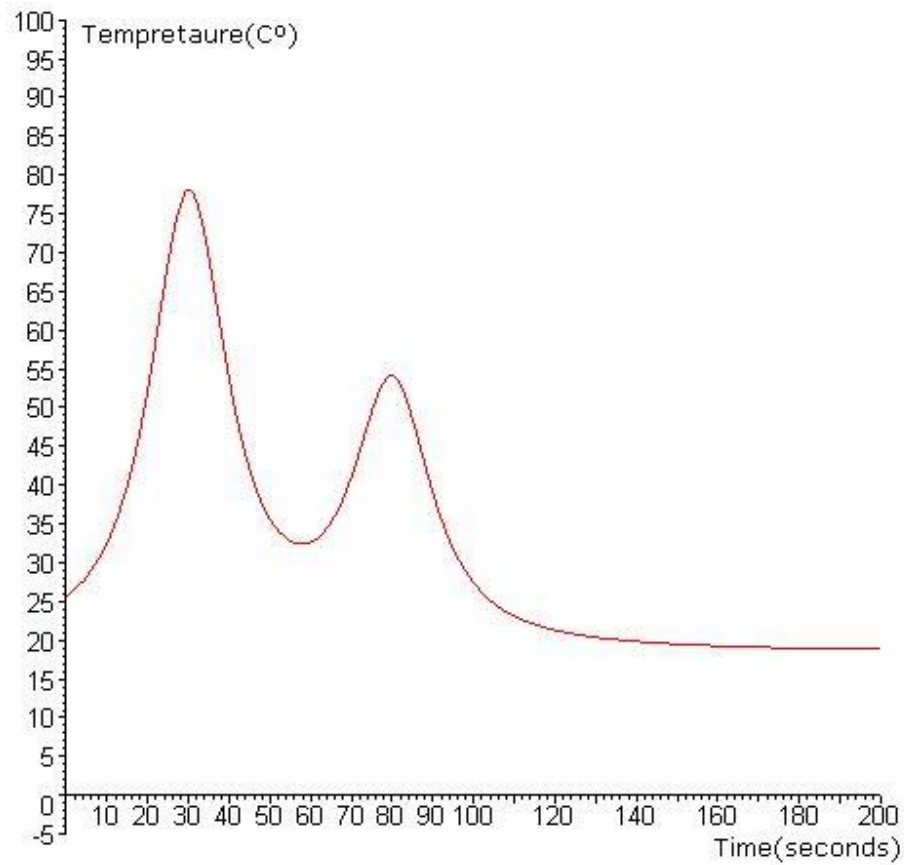
h. (5%) $f(0.8) < f(0.9)$ True/False

i. (10%) Where is the function increasing? _____

j. (10%) Where is the function decreasing? _____



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: _____
- (5%) How many times was the coffee heated? _____
- (5%) What was the initial temperature of the coffee? _____
- (5%) $\text{Temp}(t) = 30^\circ$, $t =$ _____
- (5%) When does this function decrease? _____
- (10%) What is the maximum temperature of the coffee? _____ when was it reached? _____