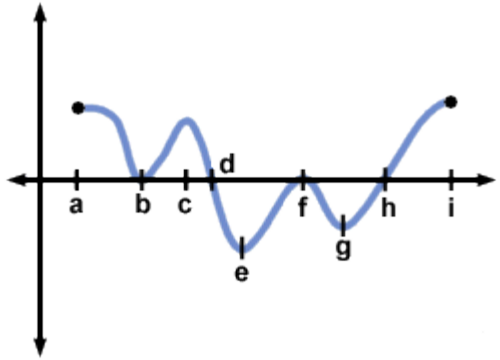Name _____ Due Date _____ Period _____

11.3 Characteristics of a Function

For each of the following label the characteristics of the function: the intervals where the function is positive and negative, intervals where the function is increasing or decreasing, and if applicable the x and y intercepts.
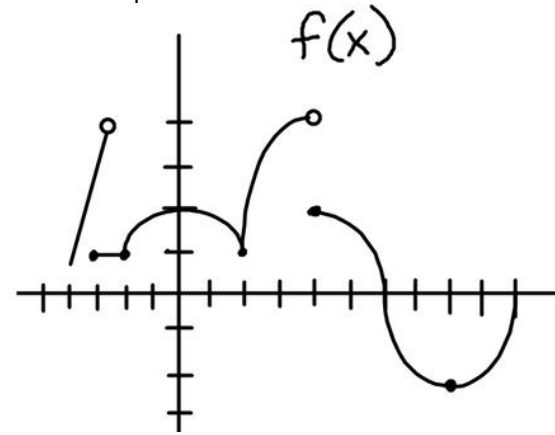
1) Use Inequalities
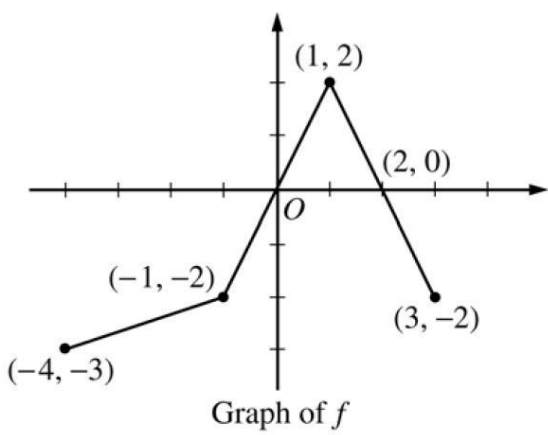Positive:
Negative:
Increasing:
Decreasing:
x-Intercepts:

2) Use interval notation
Positive:
Negative:
Increasing:
Decreasing:
y-Intercepts:
x-Intercepts:
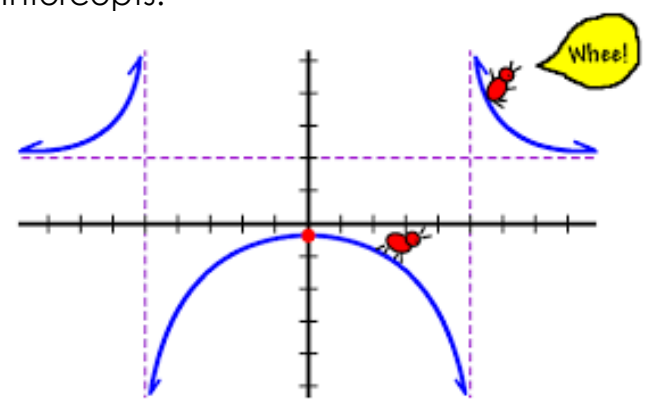
3) Use Inequalities
Positive:
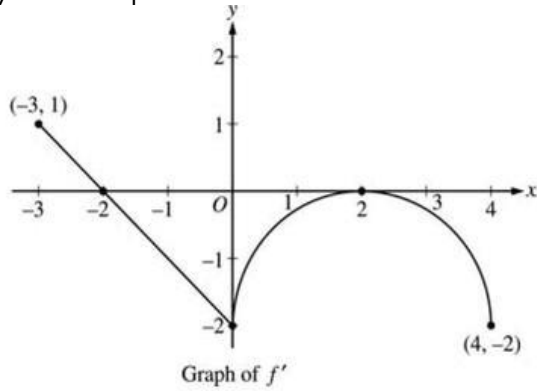Negative:
Increasing:
Decreasing:
x-Intercepts:
y-intercepts:

4) Use Inequalities
Positive:
Negative:
Increasing:
Decreasing:
y-Intercepts:

5) Use Interval notation
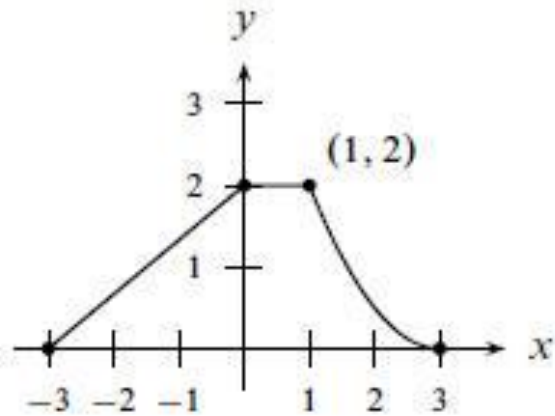Positive:
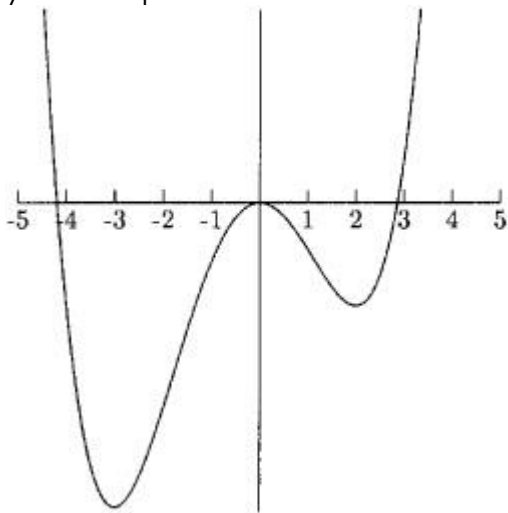Negative:
Increasing:
Decreasing:
x-Intercepts:
y-intercepts:

(-3, 1)

(4, -2)

Graph of f'

6) Use Inequalities
Positive:
Increasing:
Decreasing:
x-Intercepts:
y-intercepts:

$(1, 2)$

7) Use interval notation

Positive:
Negative:
Increasing:
Decreasing:
x-Intercepts:
y-intercepts:

8) Use interval notation

Positive:
Negative:
Increasing:
Decreasing:
x-Intercepts:
y-Intercepts