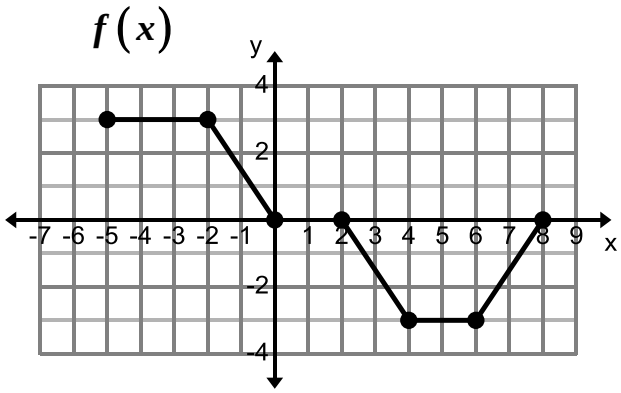
Name: _____ Period: _____

Score: _____/_____ _____%

HW 2-6 HONORS: All Characteristics of Functions

Answer problems #1-2 using SET BUILDER NOTATION.

1. Is the graph below a function? _____ Why? _____



Domain: _____ Range: _____

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

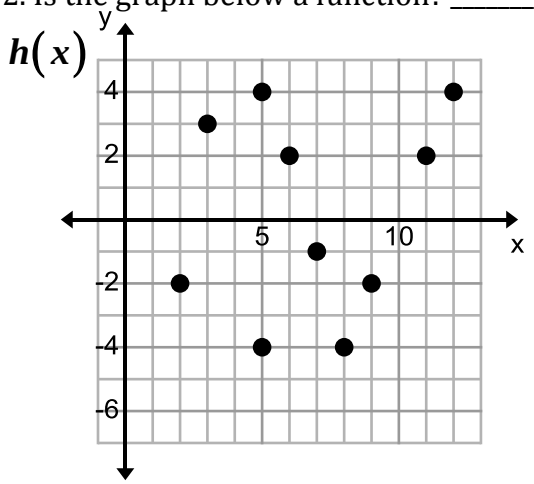
Increasing: _____ Decreasing: _____

minimum: _____ maximum: _____

Positive: _____ Negative: _____

x-intercept: _____ *y*-intercept: _____

2. Is the graph below a function? _____ Why? _____



Domain: _____ Range: _____

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

Increasing: _____ Decreasing: _____

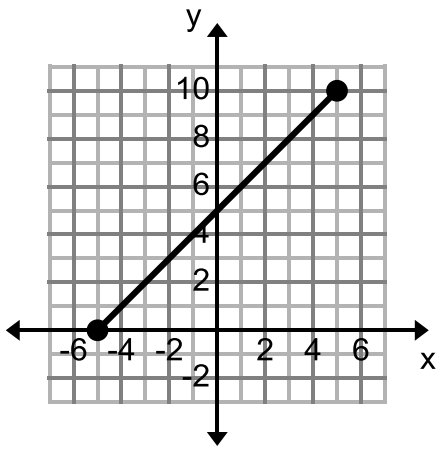
minimum: _____ maximum: _____

Positive: _____ Negative: _____

x-intercept: _____ *y*-intercept: _____

Answer problems #3-8 using INTERVAL NOTATION.

3. Is the graph below a function? _____ Why? _____



Domain: _____Range: _____

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

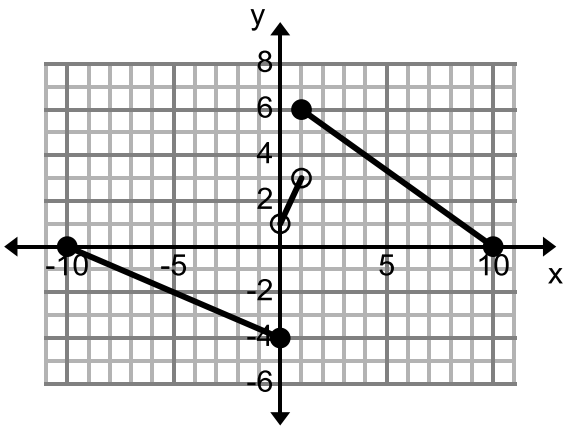
Increasing: _____ Decreasing: _____

minimum: _____ maximum: _____

Positive: _____ Negative: _____

x-intercept: _____ *y*-intercept: _____

4. Is the graph below a function? _____ Why? _____



Domain: _____ Range: _____

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

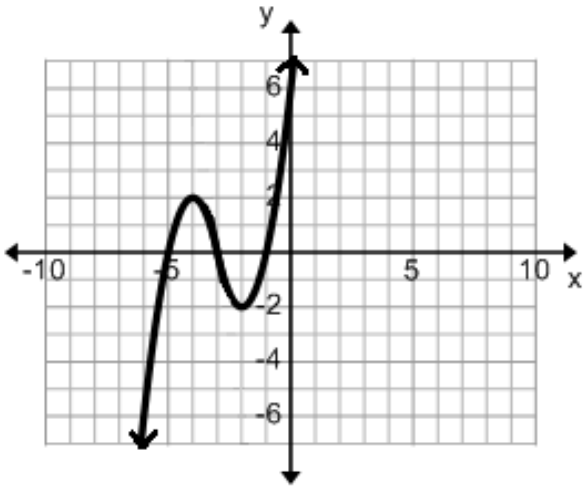
Increasing: _____ Decreasing: _____

minimum: _____ maximum: _____

Positive: _____ Negative: _____

x-intercept: _____ *y*-intercept: _____

5. Is the graph below a function? _____ Why? _____



Domain: _____ Range: _____

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

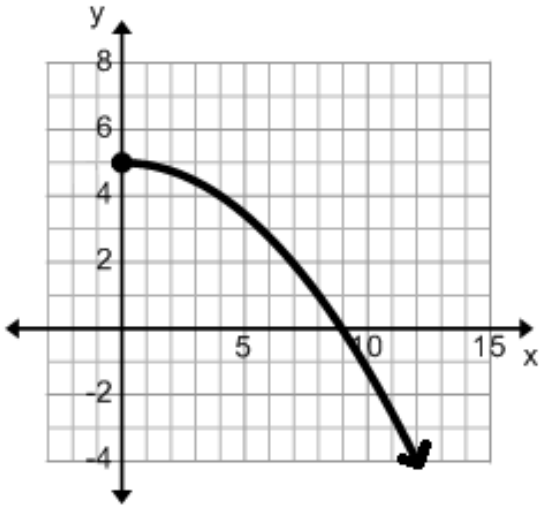
Increasing: _____ Decreasing: _____

minimum: _____ maximum: _____

Positive: _____ Negative: _____

x-intercept: _____ *y*-intercept: _____

6. Is the graph below a function? _____ Why? _____



Domain: _____ Range: _____

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

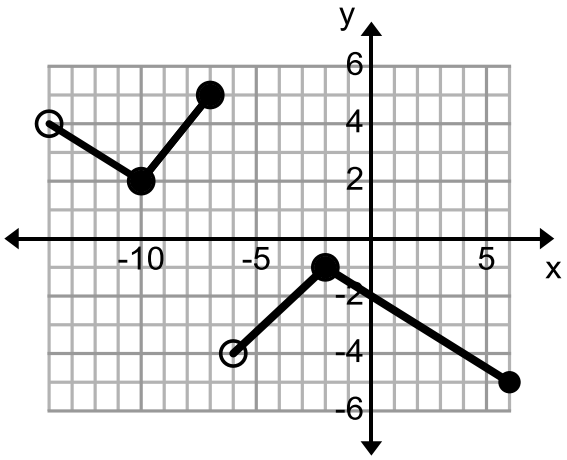
Increasing: _____ Decreasing: _____

minimum: _____ maximum: _____

Positive: _____ Negative: _____

x-intercept: _____ *y*-intercept: _____

7. Is the graph below a function? _____ Why? _____



Domain: _____ Range: _____

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

Increasing: _____ Decreasing: _____

minimum: _____ maximum: _____

Positive: _____ Negative: _____

x-intercept: _____ *y*-intercept: _____

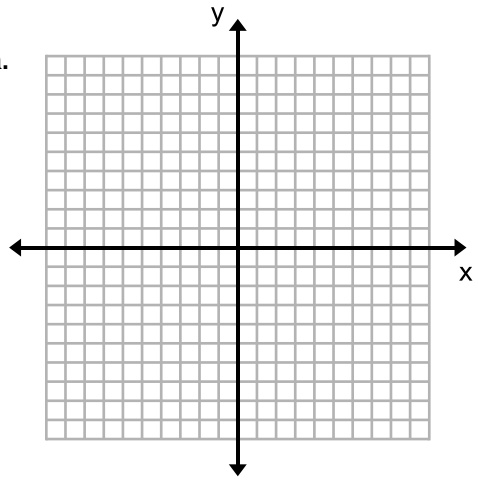
For #8-10, draw a possible graphed function that fits all of the given criteria.

8. Domain contains all Real numbers between -2 and 3.

Range contains all Real numbers between 3 and 7.

The function is increasing from -2 to 0 and decreasing after 0.

The function is no continuous at every point.

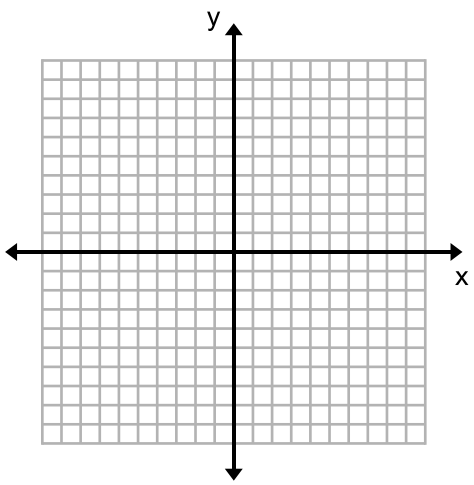


9. The function has a minimum at -5.

The function has a maximum at 8.

The function has two intervals on which it is decreasing and one interval on which it is increasing.

The domain of the functions contains all Real numbers from 1 to 9.



10. This function is not continuous anywhere.

The function contains only seven elements in its domain.

The values of the domain are between -10 and 2.

The values of the range are between -1 and 1.