Name: _____ Date: _____ Hour: _____

Unit 2 Day 8: Beyond Positive and Negative
(Increasing, Decreasing, and Constant)

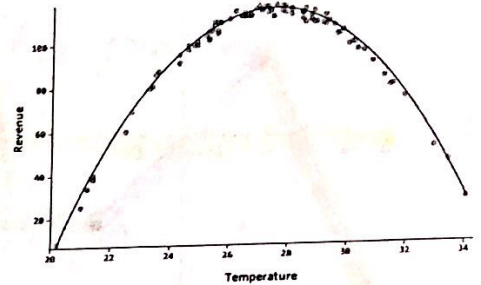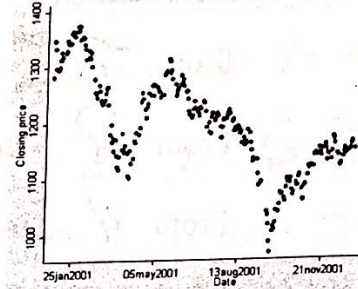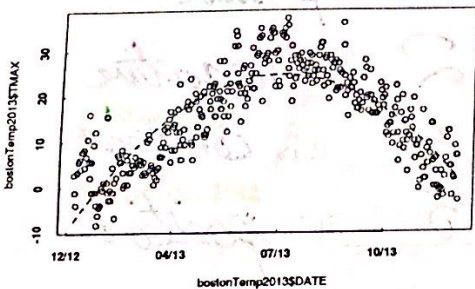*Focus Question: How do I describe a scatter plot that goes up and down?*

A. Non-linear Graphs
1. What did non-linear mean?

it curves

2. Are the following graphs non-linear?

yes

3. Can you describe them with a positive or negative correlation? Explain.

No because they have multiple correlations

4. Sometimes we describe the parts of the graph individually. We **focus on the values of the independent variable** and describe what the dependent value is doing between each section of the independent values.
Remember we read a graph from ___left___ to ___right___!

We use the terms **increasing**, **decreasing** and **constant**. Draw a picture of what you think each term means. Write a definition under each picture.
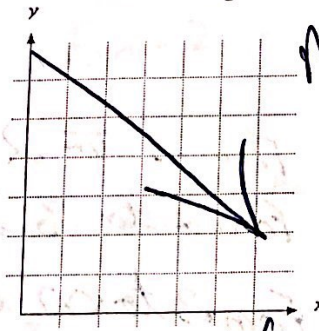
Increasing	**Decreasing**	**Constant**
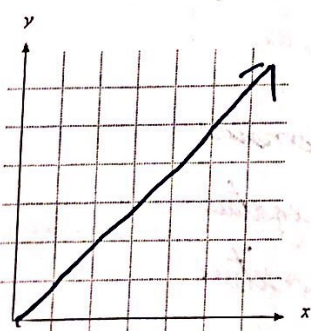
Positive

Negative

When read from **left**
to **right**, the DV is
going up

When read from **left**
to **right**, the DV is
going down
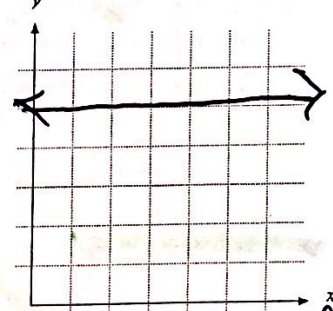
When read from **left**
to **right**, the DV is
constant

B. Intervals

When a scatter plot can be divided into sections of increasing, decreasing, and constant, we divide the **sections of the independent variable. So we are dividing up the x axis.** This is because we read a graph from _left_ to _right_. We then say what the DV is, doing on that section.

When numbers go forever to the right, we call that _infinity_ : symbol _∞_.

When numbers go forever to the left we call that _-infinity_ : symbol _-∞_.

Practice:

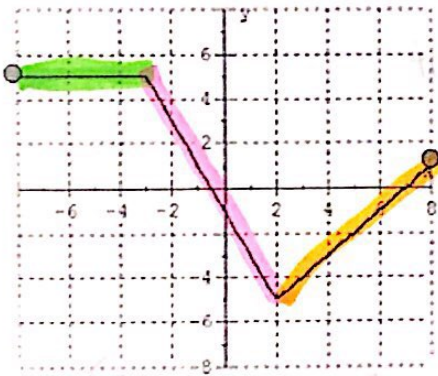Give the intervals of increasing, decreasing, or constant. Remember, we read a graph from left to right.
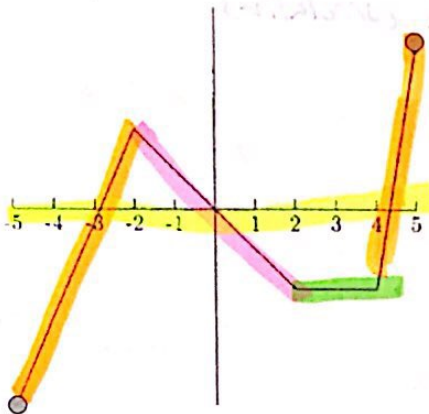
x axis   y axis

From _-5_ to _-2_ it is _positive_

From _-2_ to _2_ it is _negative_

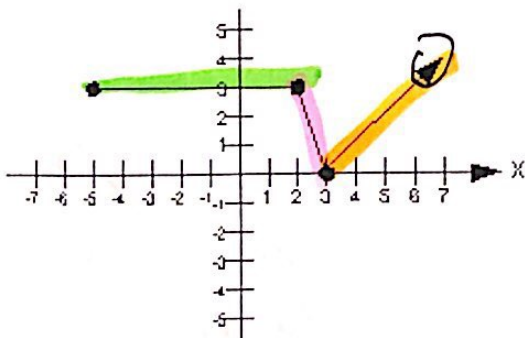From _2_ to _4_ it is _constant_

From _4_ to _5_ it is _positive_

From -8 to -3 It is constant
From -3 to 2 it is negative
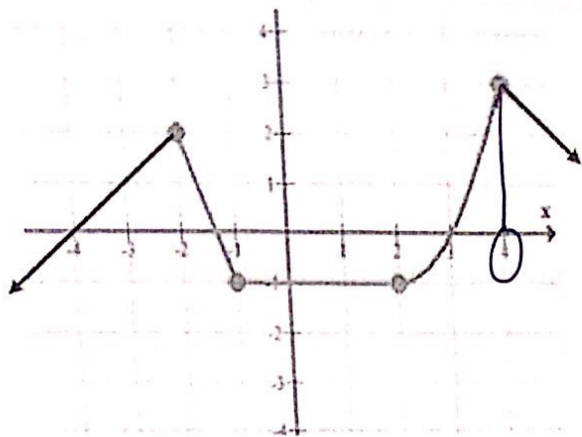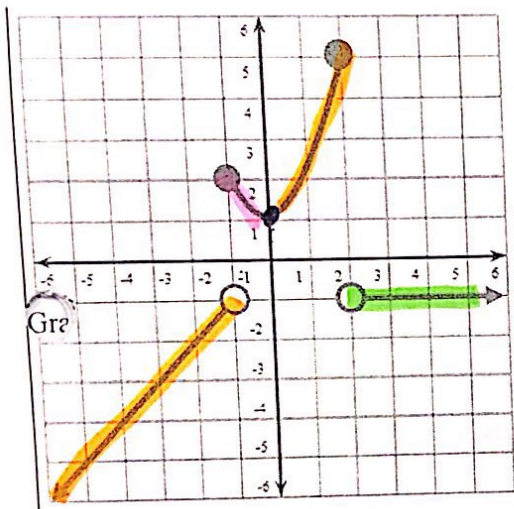From 2 to 8 it is positive

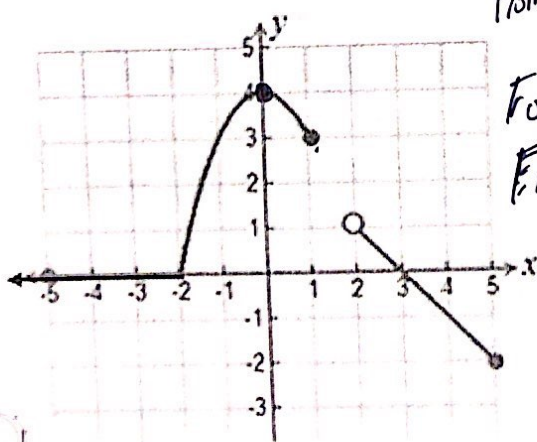From -5 to 2 it is constant
From 2 to 3 it is negative
From 3 to ∞ it is positive

From -∞ to -2 it is positive
From -2 to -1 it is negative
From -1 to 2 it is constant
From 2 to 4 it is positive
From 4 to ∞ it is negative

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From -∞ to -1 it is positive
From -1 to 0 it is negative
From 0 to 2 it is positive
From 2 to ∞ it is constant

From -∞ to -2 it is constant
From -2 to 0 it is positive
From 0 to 1 it is negative
From 2 to 5 it is negative