

Pop-Quiz
20 minutes

Code:

Things to remember~

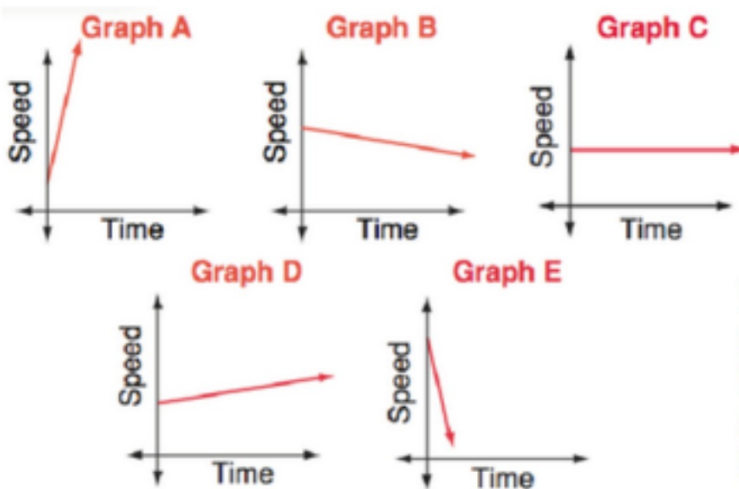
Functions: *If all x values are different it **IS** a function
*If a graph passes the vertical line test
(pencil test, it is a function! The
pencil/vertical line can only touch **ONE** point
at a time.

Comparing Functions: Find the rate of change (m) and
the y -intercept of each function. Make sure you pay
attention to what the question is asking you to
compare!!

Warm-up ~ Explore

Lesson #3: SWBAT Interpret Graphs and Tables

Graphs can be used to illustrate many different situations. There are some key words we use to describe graphs. Match the graphs below to their descriptions on the right.



1. The car's speed remains constant. C
2. The car's speed increases slowly but steadily. D
3. The car's speed increases sharply. A
4. The car's speed decreases gradually. B
5. The car's speed decreases suddenly. E

In your groups, try to match the situation (1-5) to the graphs (A-E)

Domain and Range

$\{(1,5),(3,4),(5,-2),(7,0)\}$

Domain: the first coordinates in each ordered pair in a relation. The x-values (listed from least to greatest!).

From above: $\{1, 3, 5, 7\}$

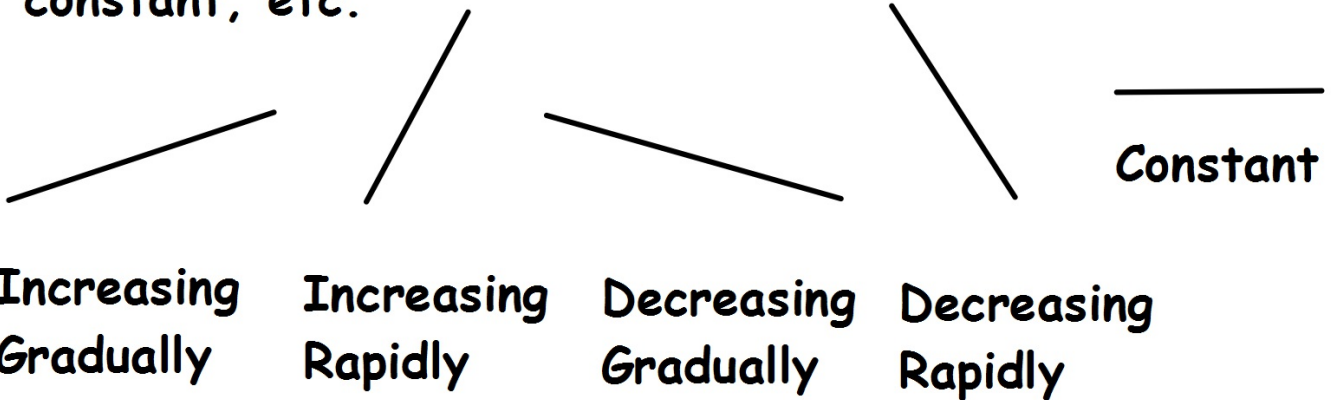
Range: the second coordinates in each ordered pair in a relation. The y-values (listed from least to greatest!).

From above: $\{-2, 0, 4, 5\}$

Interactive Notebook~ Interpreting Graphs

Tips:

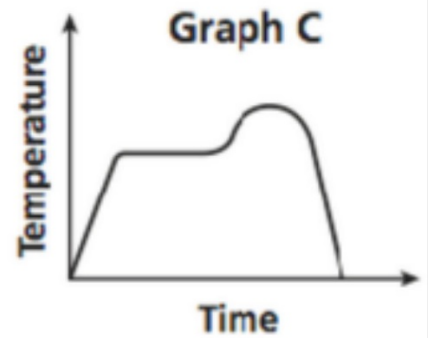
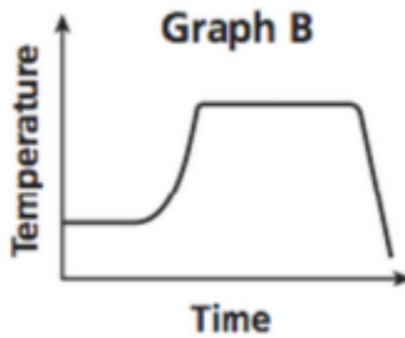
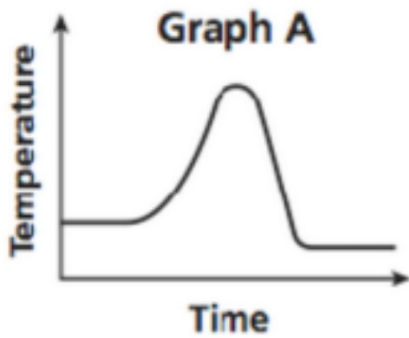
- 1) Look at the x and y axis labels.
- 2) Determine what is increasing, decreasing, constant, etc.



Example 1: Relating Graphs and Situations

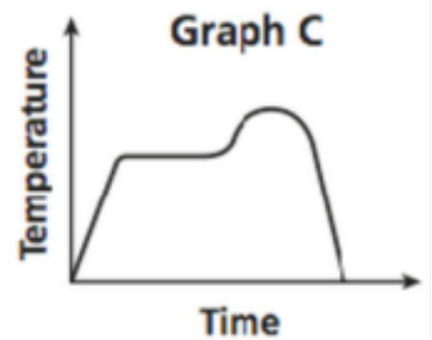
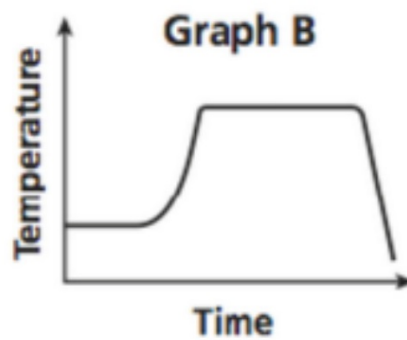
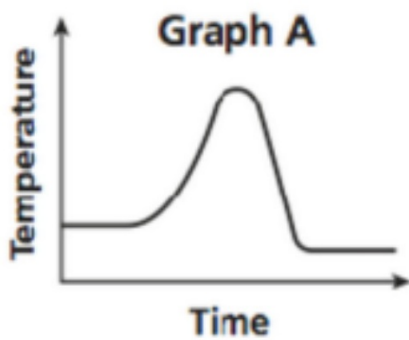
Situation 1: The air temperature was constant for several hours at the beginning of the day and then rose steadily for several hours. It stayed the same temperature for most of the day before dropping sharply at sundown. Choose the graph that best represents this situation.

Matching Graph: _____



Situation 2: The air temperature increased steadily for several hours and then remained constant. At the end of the day, the temperature increased slightly again before dropping sharply. Choose the graph above that best represents this situation.

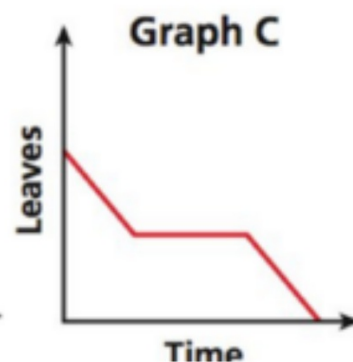
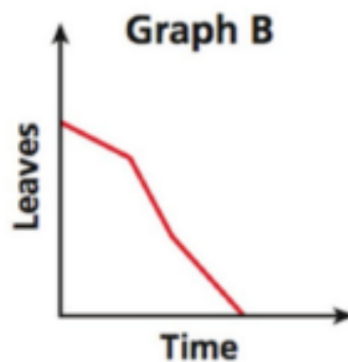
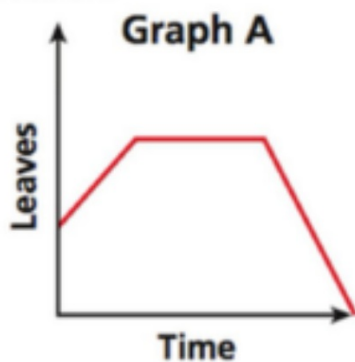
Matching Graph: _____



Lesson #3: SWBAT Interpret Graphs and Tables

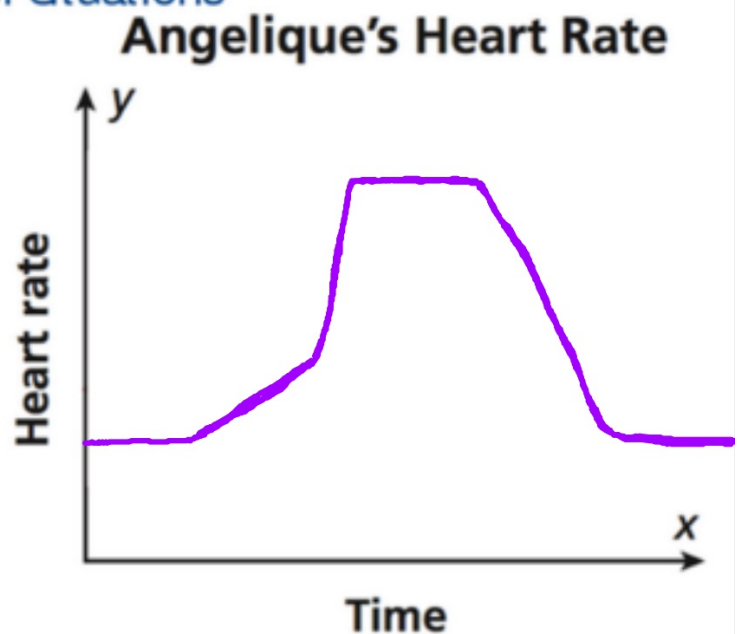
You Try 1!

Each day several leaves fall from a tree. One day a gust of wind blows off many leaves. Eventually, there are no more leaves on the tree. Choose the graph that best represents this situation.



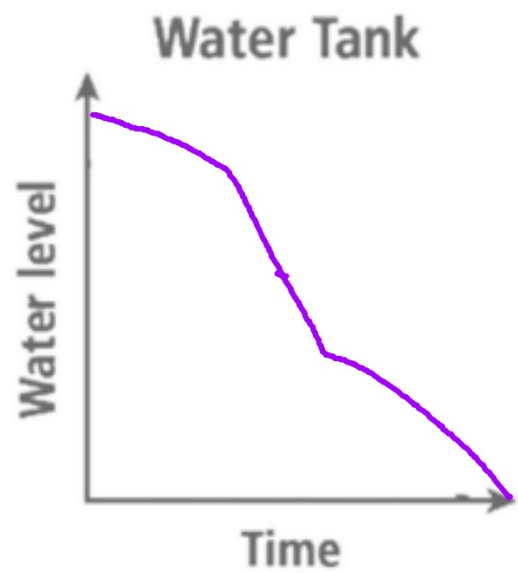
Example 2: Sketching Graphs of Situations

Angelique's heart rate is being monitored while she exercises on a treadmill. While walking, her heart rate remains the same. As she increases her pace, her heart rate rises at a steady rate. When she begins to run, her heart rate increases more rapidly and then remains high while she runs. As she decreases her pace, her heart rate slows down and returns to her normal rate.



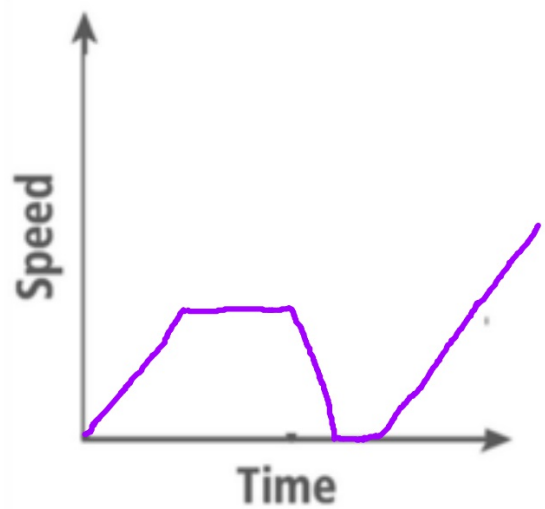
You Try 2A!

Henry begins to drain a water tank by opening a valve. Then he opens another valve. Then he closes the first valve. He leaves the second valve open until the tank is empty.



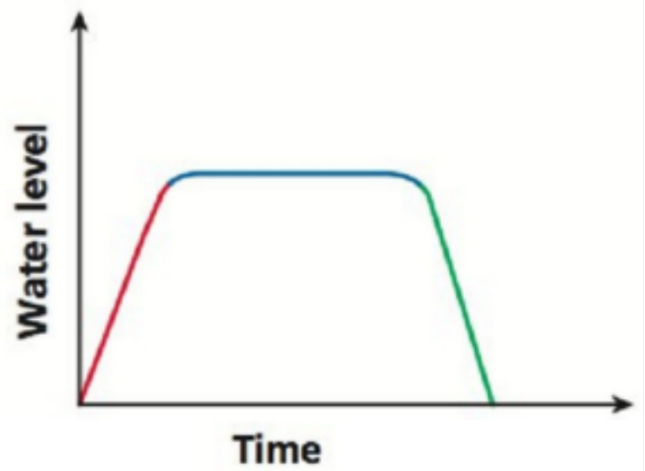
Lesson #3: SWBAT Interpret Graphs and Tables
You Try 2B!

A truck driver enters a street,
drives at a constant speed, stops at
a light, and then continues.



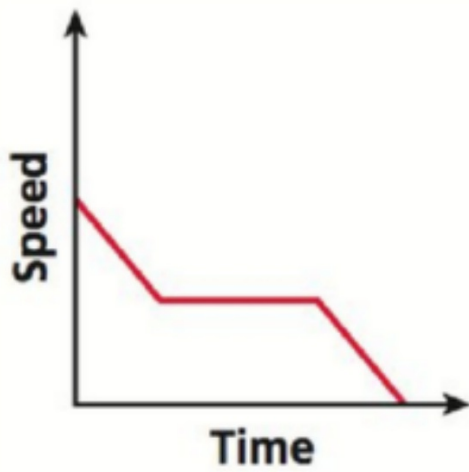
Example 3: Writing Situations for Graphs

Write a possible situation for the given graph.



You Try 3!

Write a situation that would match the graph.



Example 4: Matching Situations to Tables

The table gives the speeds of three snowboarders in mi/h at given times during a race. Tell which snowboarder corresponds to each situation.

Time (s)	6.00	12.00	18.00	24.00	30.00
Snowboarder 1	15	18	22	19	24
Snowboarder 2	17	20	0	15	21
Snowboarder 3	16	19	22	25	26

_____ Jordan gets off to a good start and continues through the course, picking up speed.

_____ Ethan gets off to a good start and picks up speed. Toward the end of the race, he nearly falls. He rights himself and finishes the race, reaching his greatest speed.

_____ Xavier gets off to a good start but falls around the middle of the race. He gets up and finishes the race, gaining speed through the finish line.

HW: Interpreting Graphs WS

