

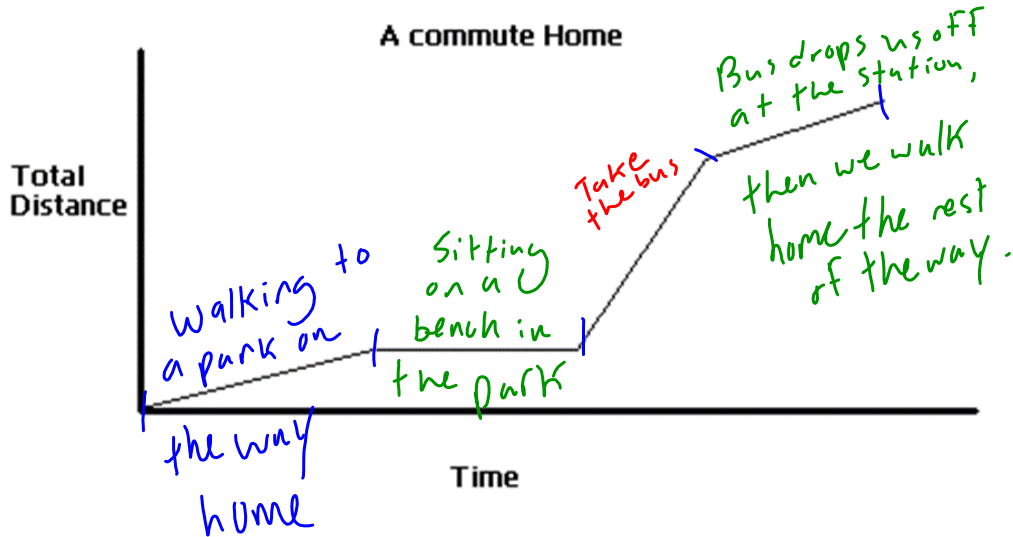
4-1 Notes: Using Graphs to Relate Two Quantities

Lesson Objective: To represent events and mathematical relationships using two-dimensional graphs.

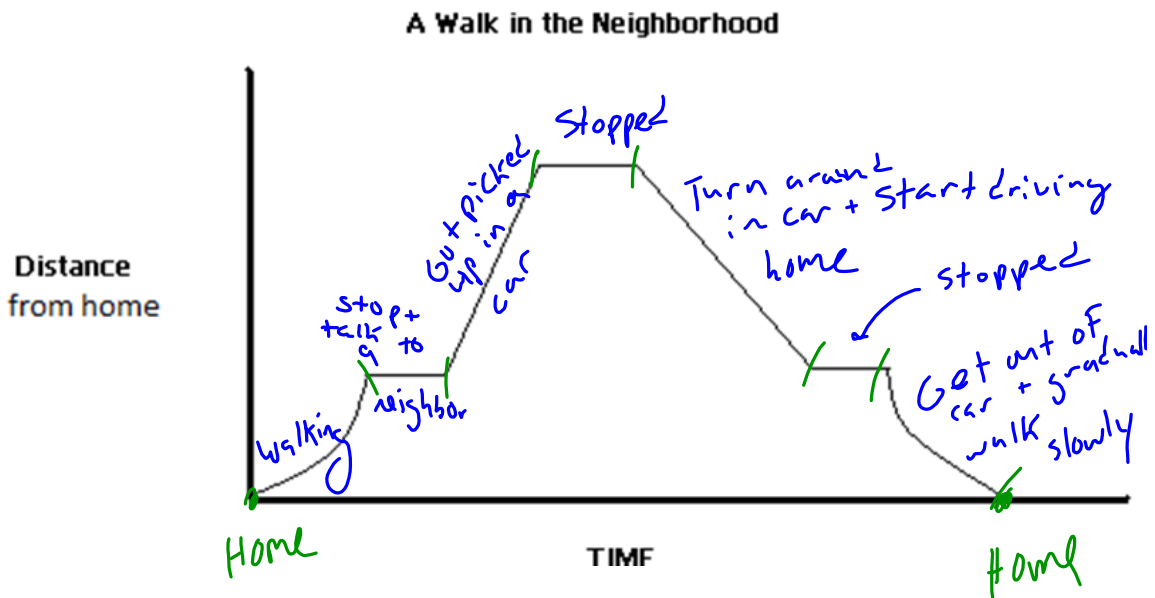
Why Graph?

Graphing allows you to show the relationship between 2 variables.

Interpreting graphs example: Write down what could be happening in this situation for each section of the graph.

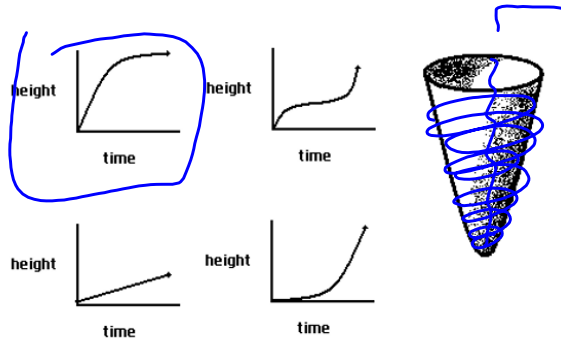


Interpreting graphs example: Write down what could be happening in this situation for each section of the graph.



Example:

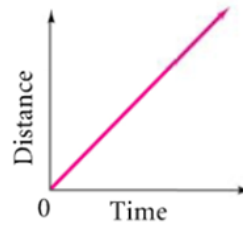
Pick the best representation of filling the shape below with water flowing at a constant rate.



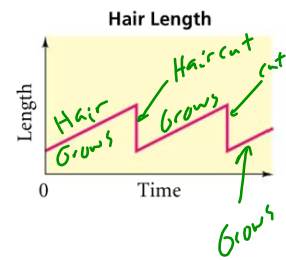
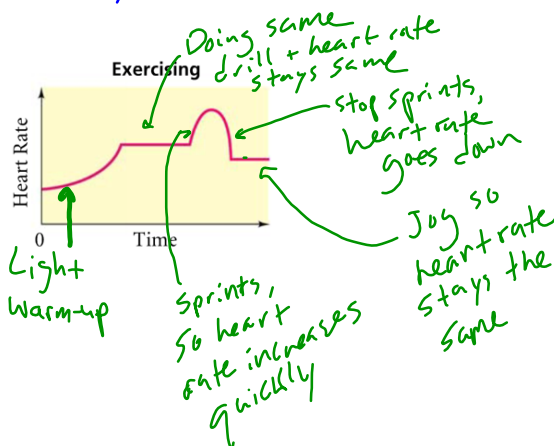
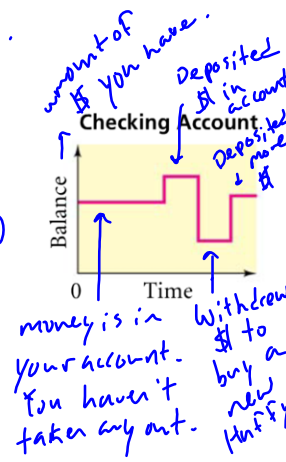
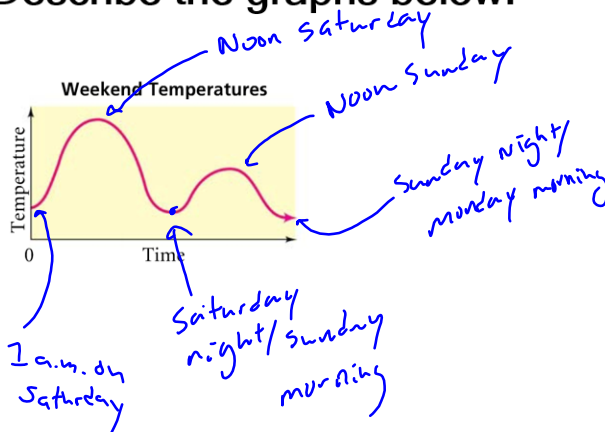
Example:

The graph at the right shows the time and distance of a moving object. Which of the following situations could be described by the graph?

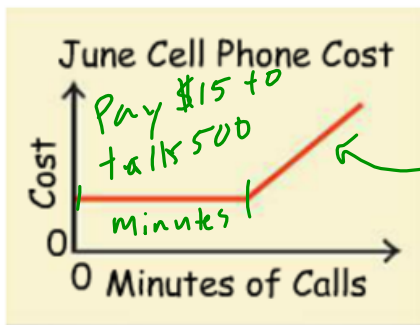
- F. A car travels at a steady speed.
- G. A cyclist slows down as she rides up a hill and speeds up as she peddles over the top.
- H. A train slows down as it arrives at the station.
- J. A plane accelerates steadily down the runway until it takes off.



Describe the graphs below.

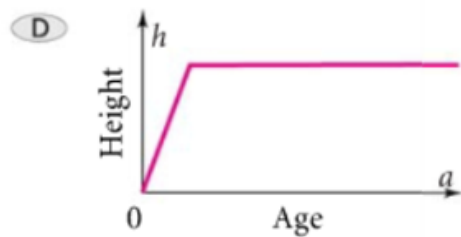
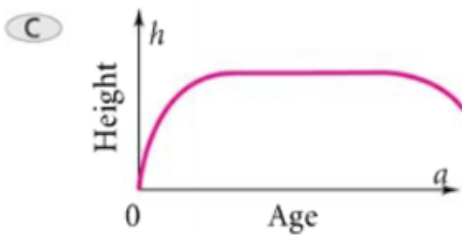
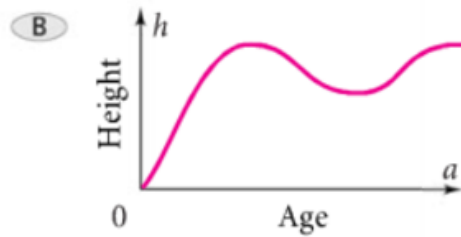
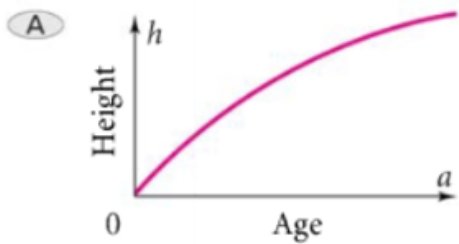


Describe the graph below:

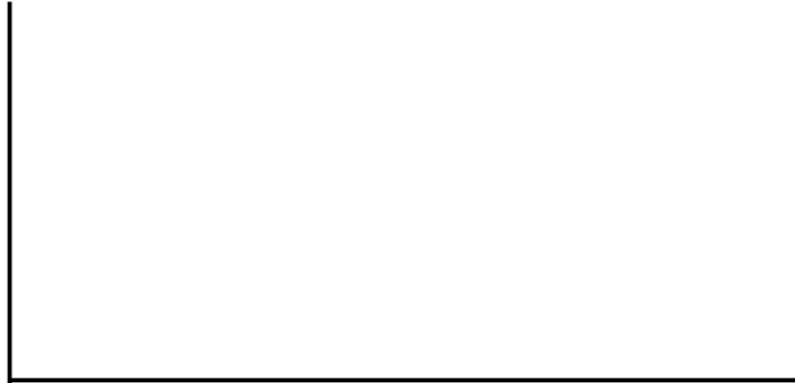


Example: *

Multiple Choice Which graph best represents a person's height from birth to age 80?

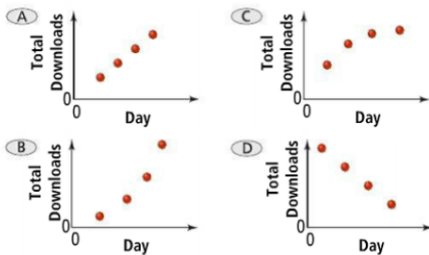


Ex. ✖ Ex. A model rocket rises quickly and then slows to a stop as its fuel burns out. It begins to fall quickly until the parachute opens, after which it falls slowly, but constantly, back to the earth. Make a graph of the rockets height during its flight.



Example: ✖

The following table shows the total number of views of a new YouTube video after 1,2,3, and 4 days. Which graph best represents the data and why?



| DAYS | IEWS |
|------|--------|
| 1 | 346 |
| 2 | 1011 |
| 3 | 3455 |
| 4 | 10,426 |

Example: ✖

| Sunscreen | | | | |
|--------------------------|---|-----|-----|-----|
| Number of Uses | 0 | 1 | 2 | 3 |
| Amount of Sunscreen (oz) | 5 | 4.8 | 4.6 | 4.4 |

