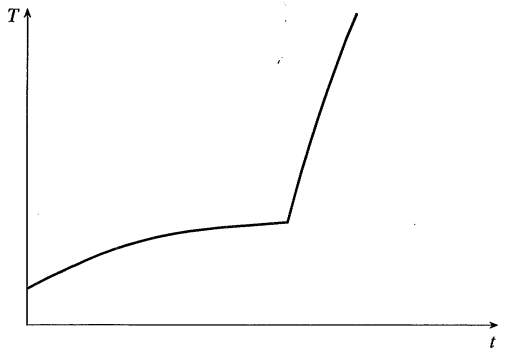
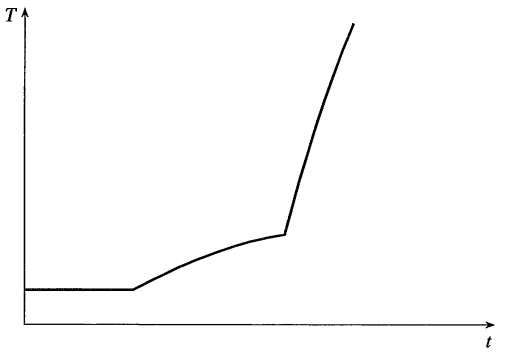
Group Work 1, Section 1.1
Every Picture Tells a Story

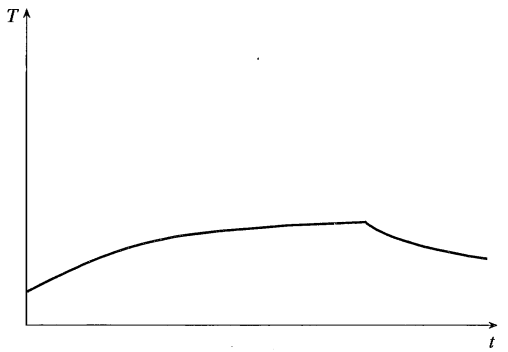
One of the skills you will be learning in this course is the ability to take a description of a real-world occurrence, and translate it into mathematics. Conversely, given a mathematical description of a phenomenon, you will learn how to describe what is happening in plain language. Here follow four graphs of temperature versus time and three stories. Match the stories with the graphs. When finished, write a similar story that would correspond to the final graph.



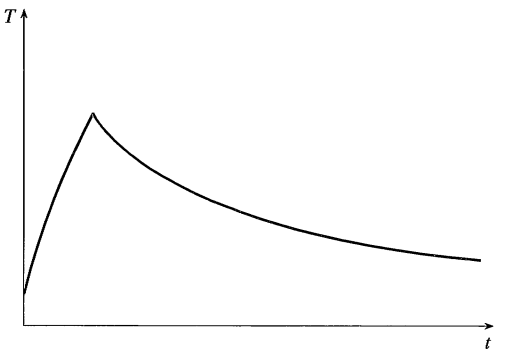
GRAPH 1



GRAPH 2



GRAPH 3



GRAPH 4

(a) I took my roast out of the freezer at noon, and left it on the counter to thaw. Then I cooked it in the oven when I got home.

(b) I took my roast out of the freezer this morning, and left it on the counter to thaw. Then I cooked it in the oven when I got home.

(c) I took my roast out of the freezer this morning, and left it on the counter to thaw. I forgot about it, and went out for Chinese food on my way home from work. I put the roast in the refrigerator when I finally got home.

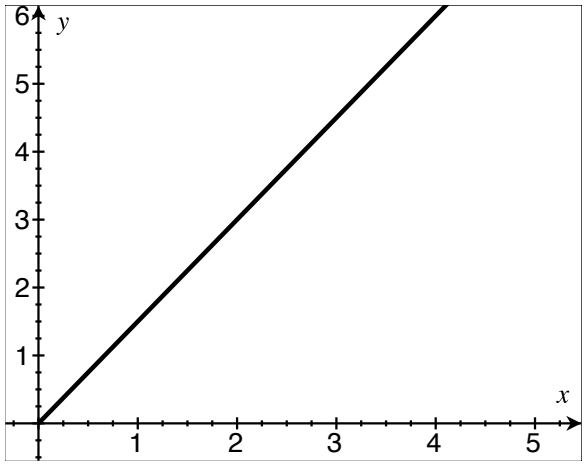
Math 1110 graphs and functions

Activity by Eric Hsu, San Francisco State University

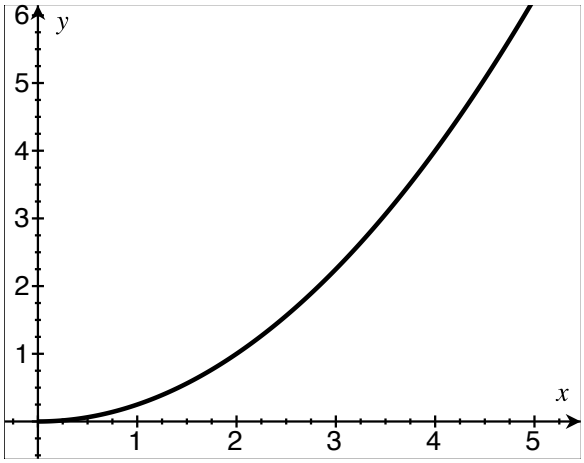
1. At summer camp, a child comes out every morning to raise a flag. Consider the height of the flag as a function of time. Sketch what such a graph might look like.

2. Consider these candidates for the graph in (1). Explain what each graph would mean. What would reasonable units be for each axis? Which one seems the most realistic to you? The least realistic?

(A)



(B)



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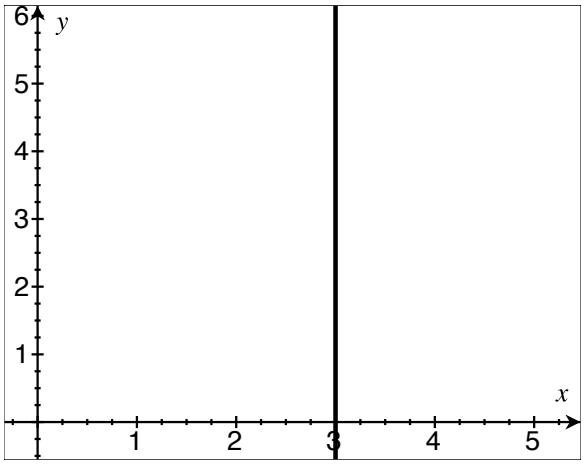
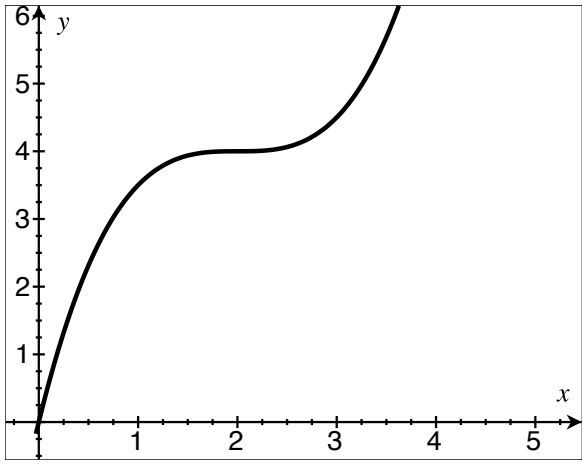
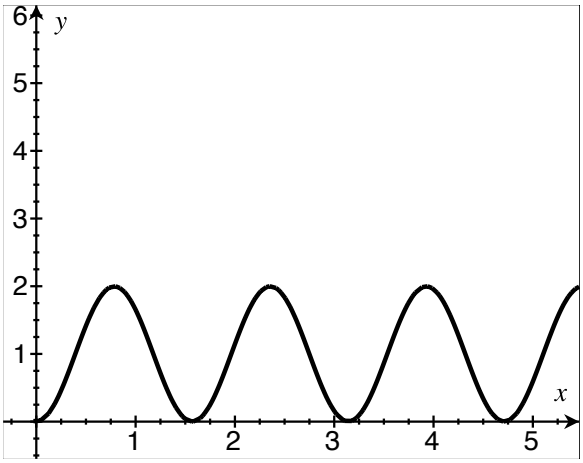


(D)



(E)



(F)