Plugged Funnel Activity

a. Did you ever notice that when filling some bottles, the water all of a sudden spurts out of the top? Why does this happen?

b. Imagine filling each of the six bottles below, pouring water in at a constant rate. For each bottle, choose the correct graph, relating the height of the water to the volume of water that's been poured in.

![Bottles and Graphs]

A B C
D E F
G H I

C. For the remaining three graphs, sketch what the bottles should look like.