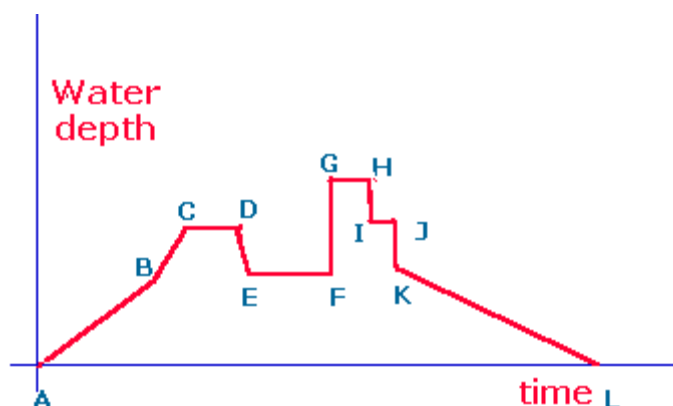


Interpreting Graphs



The Hot Tub

Based upon the graph below, answer the following question with as many details as you can justify from the graph.



Tell the Story...

If the tub is filled during AB, describe what happens in the rest of the segments (BC, CD, etc.).

Look at the Math...

- Slope.** Notice the connection between the slope of the lines and the rate of change of the water depth. On what segments is the slope positive, and the water depth increasing? On what segments is the slope negative, and the water depth decreasing? On what segments is the slope 0, and the water depth is constant? On what segment is the water depth increasing at the fastest rate? On what segment is the water depth decreasing at the slowest rate?
- Functions.** Is this concept -- depth of water over time -- a function? Explain why or why not. Hint: Can the water ever be two different heights at the exact same instant? Does the graph *appear* to be the graph of a function? Explain why or why not.