

2. (6 points) Your local coffee shop is running a promotion. They will fill up any shape container you bring to them for 50 cents. You bring in the coffee mug pictured below. If the coffee flows into the container at a constant rate, sketch a graph of the depth of coffee against time. Clearly indicate on the graph the points that correspond to when the coffee reaches heights  $h_1$  through  $h_5$  (indicated to the right of the coffee cup). [Note: On this problem, it's the *shape* of the graph that is important.]

