

Answer #336

The answer is (a): end A is open and end B is closed, as can be seen in the photographs below and heard by clicking your mouse on the photograph at the left below. Click your mouse on the photograph at the right below for a video showing the wave shape and audio spectrum of the tube as it is inverted. Note that we had to change the background for the original video seen in Question #336 so that the shadow of the reed could not be seen moving up and down in the tube.



This is a model of formants in the human voice. The reed vibrates at a certain frequency as air rushes through it, creating a fundamental with a large number of overtones. As the length of the tube increases, its resonant frequencies become lower, so it sounds more like a vocal "oo." As the length of the tube decreases, its resonant frequencies become higher, so it sounds more like a vocal "ah."

Click [here](#) to hear and see a different formant model; click [here](#) to see its wave shape and spectrum.

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