Answer #305

The answer is (d): the "hump" in the center of the cup contains a siphon, seen in cross section in the figure at the center, one detail of which (the opening from the bottom of the cup to the siphon tube) can be seen in the photograph at the left. Click your mouse on the photograph in the center to see the Phythagorean cup operate so as to protect the innocent.



Here is the complete comment from the source quoted on the Q305 page:

Invented by the infamous Pythagoras himself, the cup was designed to ascertain his students drink equal amounts of wine, while discouraging indulgence and abuse. Made of clay it holds a certain amount of liquid up to a designated point. Any excess liquid will provoke the loss of the entire contents through a hole in the bottom of the cup.

No drink can leave the cup unless the siphon is *entirely* filled. When the siphon tube is completely filled *all* of the drink will flow out of the cup, leaving totally empty, as seen in a slightly different mpeg video by clicking your mouse on the photograph at the right above using a more transparent version of the cup (pun intended). Note that the siphon works until the water level drops below the input opening of the siphon tube.

Our Pythagorean cup, shown in the photographs and videos, was obtained for us by an authentic Greek citizen on the island of Samos. The <u>ANEMA by the sea HOTEL</u>, from whose web site we obtained the photograph of the "Pythagoras cup" above, was also the source of our information regarding Pythagoras. Other information is also available from the <u>Wikipedia</u>.

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given on the Lecture-Demonstration Home Page.