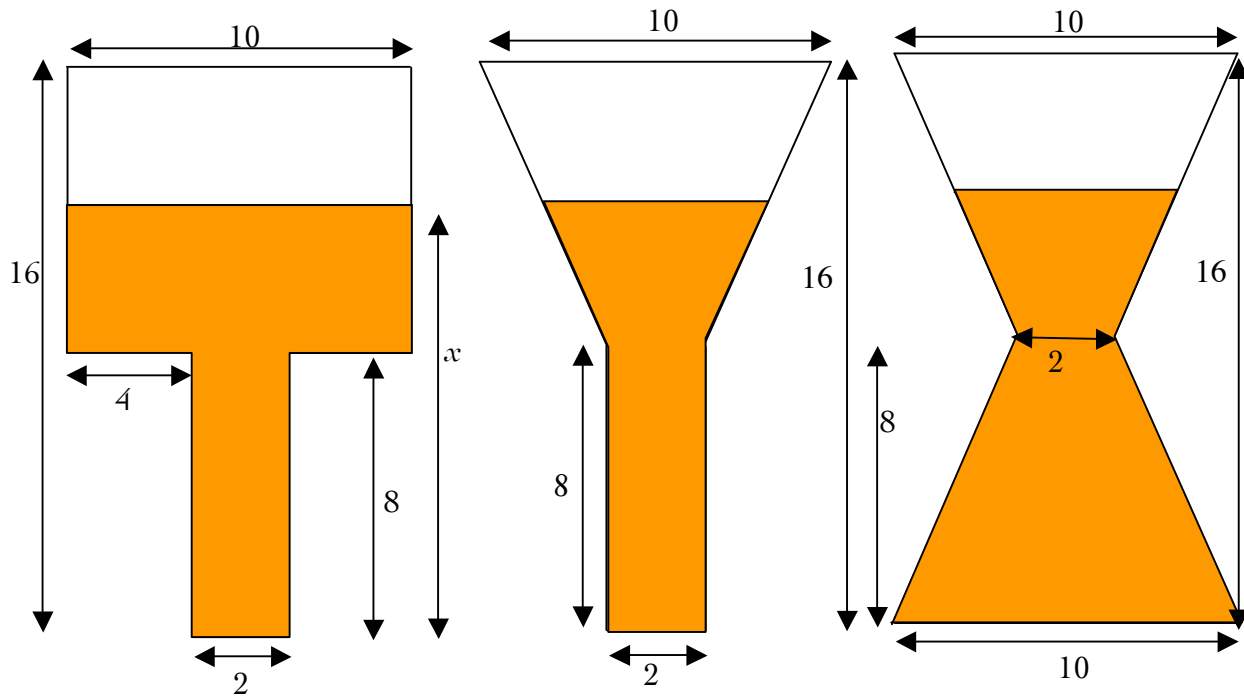# Doctor Dimension's Vessels

Doctor Dimension is a flat scientist who lives in a flat universe. He has two-dimensional vessels into which he pours his two-dimensional liquids. Here are three of his favorite vessels with their respective dimensions.

Vessel A   Vessel B   Vessel C

For each of the vessels, find an equation for the amount of liquid (y) as a function of the height of the liquid (x). Because his vessels and liquids are two-dimensional, the amount of liquid is measured as *area*.

After you have written an equation check it by making sure that individual values are correct (for example in Vessel B when h=8 the area should equal 16). Check multiple points!

GRAPHING!

After you have represented the area with an equation sketch the graph of the function.

Equation for Vessel A:	Equation for Vessel B:	Equation for Vessel C:
Graph for Vessel A: Label the axes with words and #s!	Graph for Vessel B: Label the axes with words and #s!	Graph for Vessel C: Label the axes with words and #s