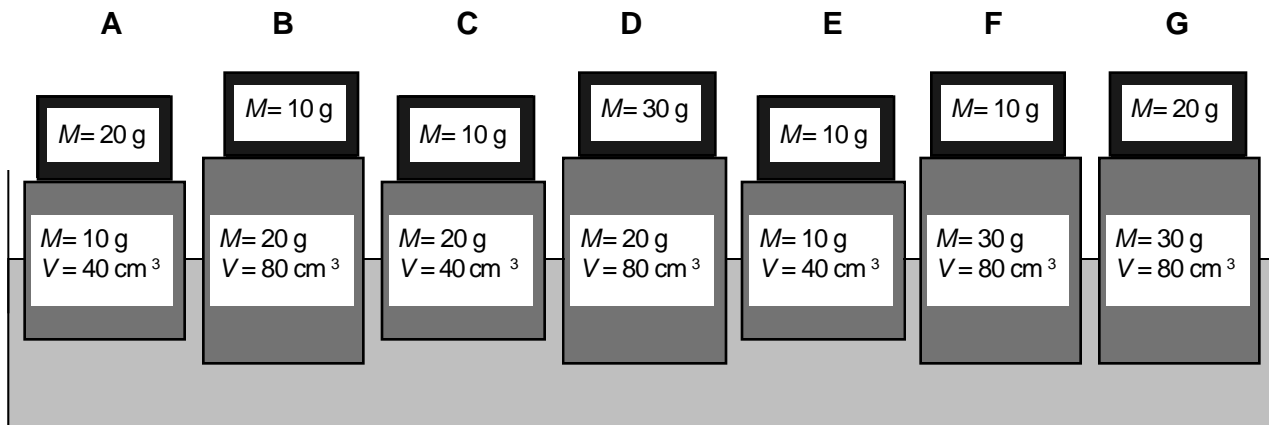


Floating Blocks with Different Loads—Buoyant Force ¹⁰²

Shown below are seven wood blocks which have different masses and different volumes. These blocks are floating in water. On top of these blocks are additional masses which provide a load for each of these blocks. Note: The blocks are not drawn correctly in terms of the depth the wooden blocks are in the water.

Rank these situations, from greatest to least, on the basis of buoyant force on the wood blocks by the water.



Greatest Force 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ Least Force

Or, all of the buoyant forces on the wood blocks by the water are equal. _____

Or, there are no buoyant forces on the wood blocks by the water. _____

Or, it is not possible to determine the buoyant forces on the wood blocks by the water. ____

Please carefully explain your reasoning.

How sure were you of your ranking? (circle one)

Basically Guessed

Sure

Very Sure

1 2 3 4 5 6 7 8 9 10

¹⁰² C. Hieggelke