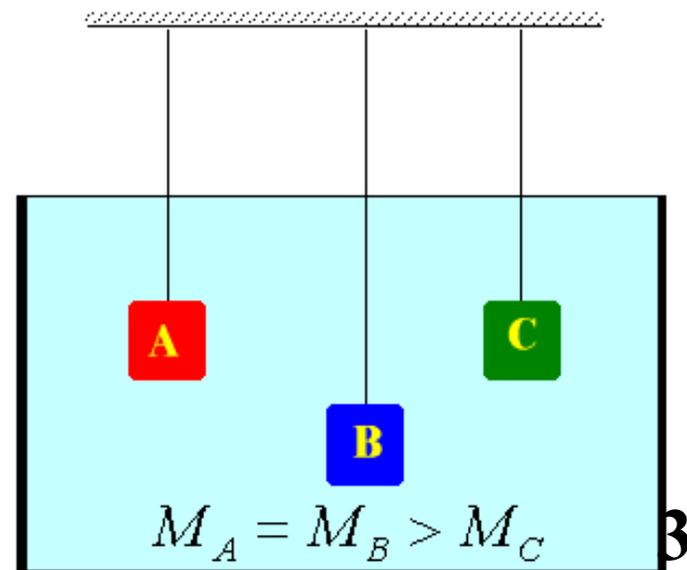




Three cubes of equal volume are hung on strings. A and B have the same mass and block C has less. The blocks are lowered into a fish tank and they hang at rest as shown.

How does the force exerted by the water on the top surface of cube A compare to the force exerted by the water on the top surface of cube B?

- A. The force on A is bigger
- B. The force on B is bigger
- C. They are the same.

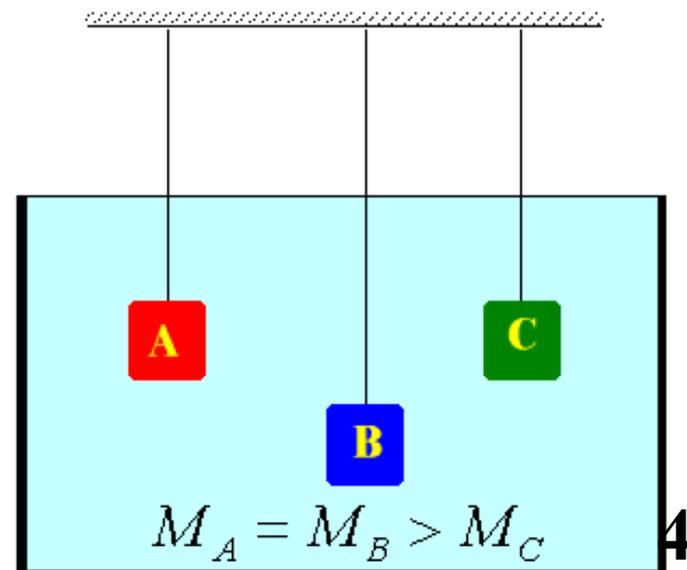




Three cubes of equal volume are hung on strings. A and B have the same mass and block C has less. The blocks are lowered into a fish tank and they hang at rest as shown.

How does the force exerted by the water on the bottom surface of each cube compare to the force exerted by the water on the top surface of that same cube?

- A. The force on top is bigger
- B. The force on bottom is bigger
- C. They are the same.

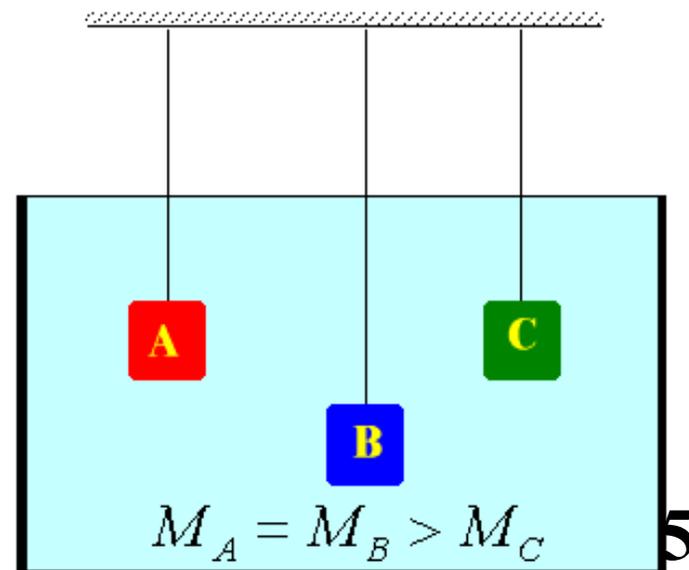




Three cubes of equal volume are hung on strings. A and B have the same mass and block C has less. The blocks are lowered into a fish tank and they hang at rest as shown.

How do the buoyant forces exerted by the water on the three cubes rank?

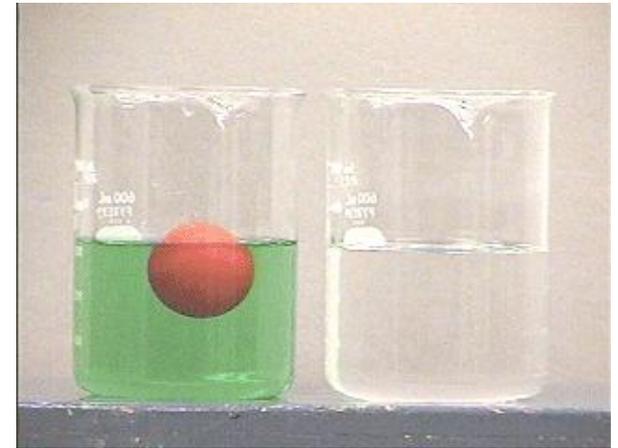
- A. $BF_B > BF_A = BF_C$
- B. $BF_B = BF_A > BF_C$
- C. $BF_B > BF_A > BF_C$
- D. $BF_A = BF_B = BF_C$
- E. Some other ranking



A ball floats in a beaker of water. The ball sinks in a beaker of mineral spirits. The mineral spirit will float above the water when poured slowly on top of water.

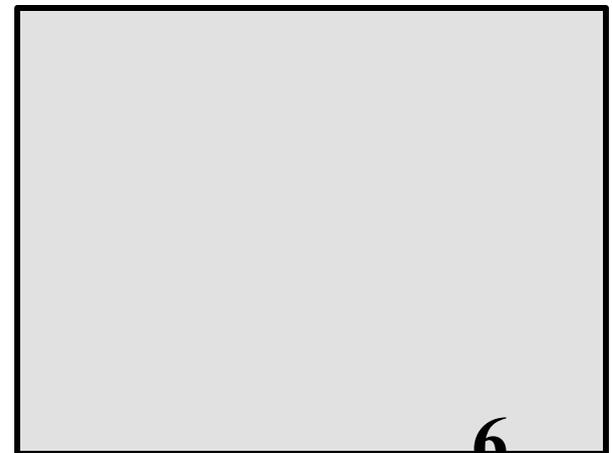


If the ball is floating on the water 2/3 of the way under the water, what will happen to the ball when mineral spirits is slowly poured on top of the water?



Relative to the top of the water,

- A. The ball will go down.
- B. The ball will go up.
- C. The ball will stay at the same level.





Two identical glasses are filled to the same level with water. One of the two glasses has ice cubes floating in it. Which glass weighs more?

- A. The glass without ice cubes.
- B. The glass with ice cubes.
- C. The two weigh the same.
- D. There is not enough information.





Two identical glasses are filled to the same level with water. One of the two glasses has ice cubes floating in it. When the ice cubes melt, in which glass is the level of the water higher ?

- A. The glass without ice cubes.
- B. The glass with ice cubes.
- c. It is the same in both.
- D. There is not enough information.





There is a lot of talk about the north polar ice cap melting. When it melts what will the result be on sea level?

- A. It will rise.
- B. It will fall.
- C. It will stay the same



What will happen?



- A. The big balloon will grow and the small balloon will get smaller.
- B. The two balloons will equalize in size.
- C. The small balloon will grow and become the bigger balloon.

Blood flows through a coronary artery that is partially blocked by deposits along the artery wall. Through which part of the artery is the flux (volume of blood per unit time) largest?



1. The narrow part
2. The wide part
3. Same in both





Blood flows through a coronary artery that is partially blocked by deposits along the artery wall. Through which part of the artery is the speed of the blood the largest?

1. The narrow part
2. The wide part
3. Same in both

