

A chunk of iron is sitting on a table. It is then covered by a bell jar which has a nozzle connected to a vacuum pump. The air is extracted from the bell jar. The force the table exerts on the chunk when the chunk is sitting in a vacuum is _____ the force that the table exerted on the chunk when the chunk was sitting in the air



1. greater than
2. less than
3. the same as

A chunk of iron is sitting on a scale. The iron and the scale are then both immersed in a large vat of water. After being immersed in the water, the scale reading will be _____ the scale reading when they were simply sitting in the air. (Assume the scale would read zero if nothing were sitting on it, even when it is under water.)

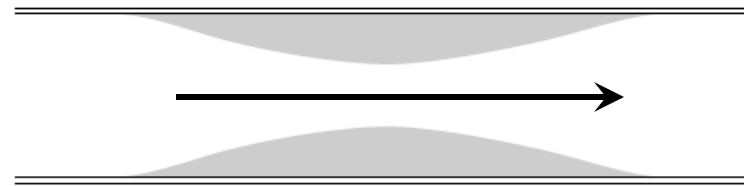


1. greater than
2. less than
3. the same as



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?

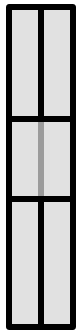
1. The narrow part
2. The wide part
3. Same in both





Seeing the implications

Construct the two combinations of coffee straws as shown in the figure below. Fill your lungs with air and blow as hard as you can through each one.



A.

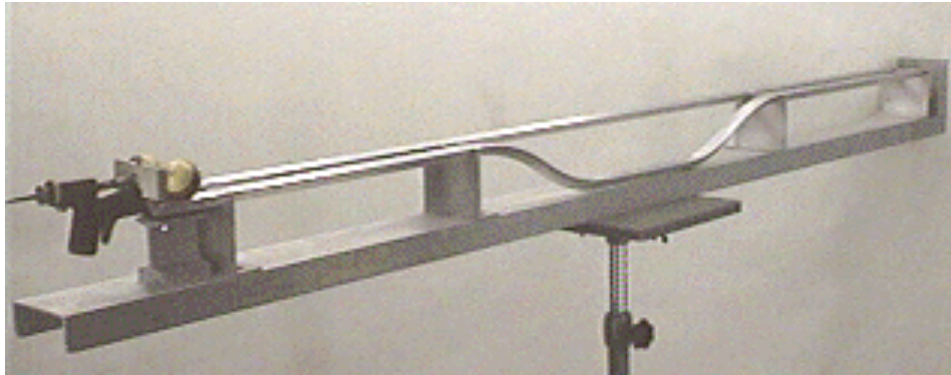


B.

Which did you find?

1. Arrangement A was faster.
2. Arrangement B was faster.
3. Both were the same.

Both balls are launched at the same speed.
Which one gets to the end first?



1. The one on the straight track.
2. The one on the dipped track.
3. They are the same.