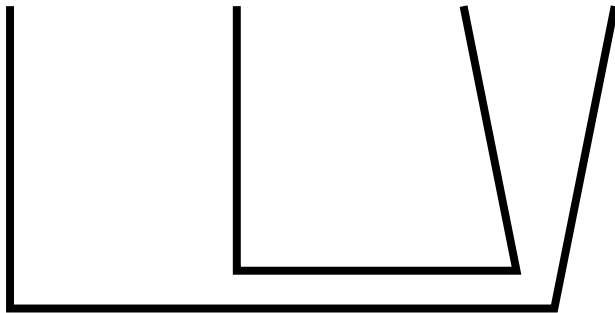


# Question 1

A container is shaped as illustrated. The base of the container is horizontal. Water is poured into the right.



Which of the following is true after the water eventually settles?

1. The water level on the left is the same as on the right.
2. The water level on the left is lower than on the right.
3. The water level on the left is higher than on the right.

## Question 2

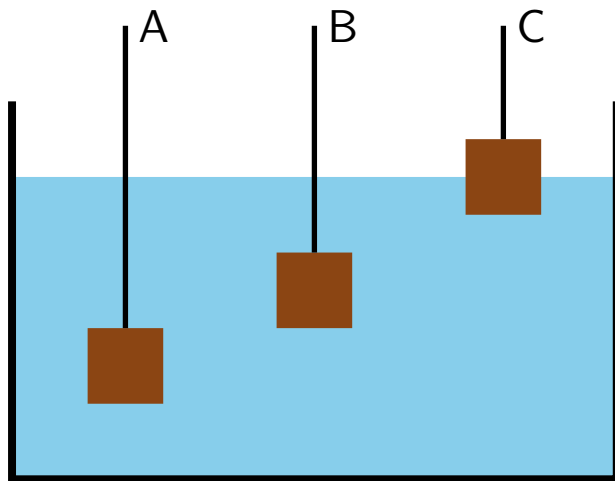
The density of water is  $1000 \text{ kg/m}^3$ . Water is sucked up a tube which protrude vertically from a larger reservoir.

Which of the following is true regarding the maximum height to which the water will rise up the tube?

1. There is no maximum. The higher the tube the higher it can be sucked up.
2. The maximum height is about 100 m.
3. The maximum height is about 10 m.
4. The maximum height is about 1 m.
5. The maximum height is about 0.1 m.

## Question 3

Three identical objects are suspended by strings and held at rest in a fluids as indicated.



Which of the following best describes the rank of the tensions in the strings?

1.  $A = B = C$
2.  $A = B < C$
3.  $A = B > C$
4.  $A > B > C$
5.  $A < B < C$

## Question 4

A boat carries a large rock and the boat floats in a lake.

The rock is thrown overboard. Which of the following is true?

1. The water level in the lake rises.
2. The water level in the lake falls.
3. The water level in the lake stays the same.