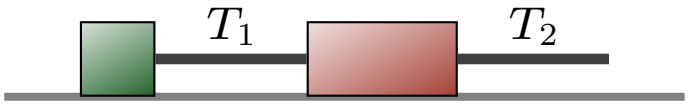
Question 1

Two blocks on a frictionless horizontal surface are connected by a massless rope. The larger block has a greater mass than the smaller block. Starting at rest, the rightmost block is pulled by another massless rope.



Which of the following is true while the blocks move to the right?

1. $T_1 = T_2$
2. $T_1 > T_2$
3. $T_1 < T_2$

Warm Up Question 1

Two blocks are in the configuration of Figure 6.6 (Example 6.4). The horizontal surface is frictionless. The blocks are released and move. While they do this, how does the tension in the string compare (same, larger, smaller, etc,...) to the gravitational force on the suspended block? Explain your answer.

1. Equal since $T = mg$. There are only two forces on the suspended block.
2. Tension smaller because suspended block moves down.
3. Tension smaller because suspended block accelerates down.
4. Tension larger.