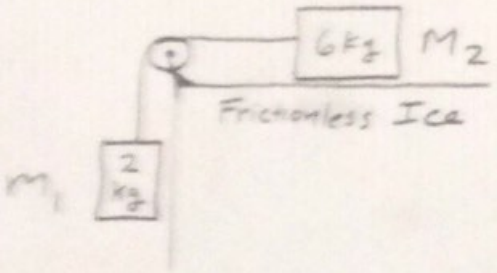
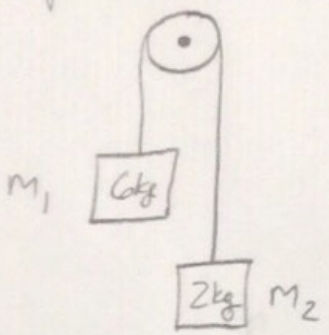
A rope connecting two masses is drapped over a pulley on planet earth where $g = -10\ m/s^2$.



The mass of the rope is negligible.
There is no friction.
The mass of the pulley is negligible.

1. What is the acceleration of the system?
2. What is the tension in the rope?

A rope connecting two unequal masses is draped over a pulley on planet earth where $g = -10\ m/s^2$.



The masses of the rope & pulley are negligible.

There is no friction.

1. What is the acceleration of the system?
2. What is the tension in the rope?