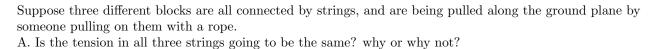
## Strings and Tension PHYS 2425

## Phil Alcorn

September 18, 2025

## 1. Conceptual Questions



- B. Which of the three strings will have the most tension?
- C. Why does tension remain constant across and ideal pulley?

## 2. Newton's Laws

A. A 2.0 kg block rests on a frictionless table and is connected to a 1.0 kg hanging block by a string over a pulley. (a) Find the acceleration of the system. (b) Find the tension in the string.

B. A  $4.0\,\mathrm{kg}$  block on a frictionless incline at  $30^\circ$  is connected by a string over a pulley to a  $2.0\,\mathrm{kg}$  hanging block. (a) Determine the acceleration of the system. (b) Determine the tension in the string.