

# Warm-Up: What's an AST?

Prepared by Mark on February 25, 2025

Based on a true story.

## Instructor's Handout

This handout contains solutions and notes.

Recompile without solutions before distributing.

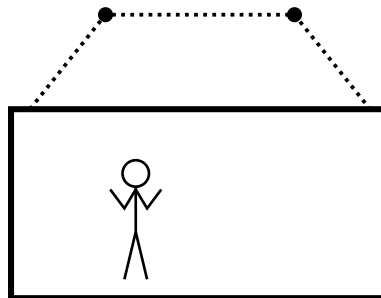
### Problem 1:

Say we have a painting on a string.

Hang the painting on two nails so that if either is removed, the painting falls.

You may detach the string as you hang the painting, but it must be re-attached once you're done.

*Hint:* The solution to this problem isn't a "think outside the box" trick, it's a clever wrapping of the string.



### Solution:

Say we have a left nail and a right nail. The path of the string is as follows:

- Start on the left
- Move over both nails, wrap right nail cw
- Wrap left nail ccw
- Wrap right nail ccw
- Exit downwards, in between both nails