

Ping Pong Pipe

You and six good friends are locked in an empty basement room. There is a steel pipe embedded in the concrete floor of the basement room. The pipe sticks up 4" from the floor. The inside diameter of the pipe is $1\frac{1}{2}$ inches. The outside diameter of the pipe is $1\frac{3}{4}$ inches. All of the doors in the room are locked from the outside – there is no escape...unless you can figure out how to remove the *door release device*.

The *door release device* is a **ping pong ball**, which is attached at the bottom to a wire that is hooked up to a mechanism that will unlock the doors. The mechanism is embedded in the concrete floor – you will have no way of knowing how it works, nor what it looks like.

The outside diameter of the ping pong ball is $1\frac{7}{16}$ inches. Removing the ping pong ball from the pipe, and then detaching the wire, will activate the *door unlocking mechanism*, allowing you and your six friends to escape the dreaded basement. Naturally, if you escape, you also get to go to Disneyworld.

Luckily, you and your friends had a few items in your backpacks that might help you get the ping pong ball out of the pipe. The items that you have are:

- 100 feet of clothesline
- A carpenter's hammer
- A chisel
- A box of Wheaties
- A File
- A wire coat hanger
- A monkey wrench
- An incandescent light bulb

Explain as many ways as possible that you can get the ping pong ball out of the pipe, on a foldable, with all of your team members' names in the middle of the foldable.

Oh, one more thing....you can not destroy the pipe, the floor, any part of the room, nor the ping pong ball – ALL must stay intact.

Divide up the work to be done to solve this problem.