

# Stacking the Cups

## JUDGE READS TO TEAMS:

This is a two-part problem. In Part I you will have 5 minutes to discuss the problem, practice, and create a solution. In Part II you will be given 3 minutes to test your solution.

You may talk to each other at any time. You may ask questions, but they will count against your time.

1. Your problem is to stack the cups inside of each other. You may have more than one stack.
2. You will be given materials to use to solve the problem. Nothing else may be used. You may not break the PVC pipe, ruler or yardstick.
3. There are 25 cups in a taped area. The stacks must be in the taped area to receive score.
4. There are four blue taped areas. Team members must be in these areas during Part II. More than one team member may be in an area.
5. When Part II begins you are to take the materials to the areas you choose. You may not leave your area until time ends or your team is finished. Materials may not be used in areas different from the start of Part II.
6. You may not leave your area or pass materials to a team member in another area. You may reach beyond the area but you may not contact the floor beyond the tape.
7. Cups may be stacked upright or upside down. Cups that are stacked on their side will receive half the score.
8. You will receive score for cups only if they are in a stack of two or more. Scoring will be as follows:

- a. Cup second from the bottom ..... 1 point
- b. Cup third from the bottom .....2 points
- c. Each additional cup in the stack .....3 points
- d. How well the team works together ..... 1 to 10 points

C. FOR JUDGES ONLY:

1. Be sure to give the team 5 minutes for Part I and 3 minutes for Part II.
2. The course should be a rectangle measuring approximately 10' x 15' (see diagram).  
Dimensions  
may be altered to fit the competition site.
3. Place 25 adhesive dots or pieces of tape on the floor where the cups are to be placed.  
These do  
not have to follow the order of the diagram.
4. Place some cups upside down, on their side, etc. Be sure cups are placed in the same way  
at each  
location. The cups may be Styrofoam, paper or plastic; however, they must be the same  
for each  
team.
5. Replace broken, torn or dented cups before the next team competes. If a cup in a stack is  
broken  
or dented, it will receive score if it is mostly intact. This is the subjective opinion of the  
judge.
6. The string may be used between members in different areas if each team member  
takes an end to his/her location when Part II begins.
7. Team members may touch the cups if they can do so without leaving their area.
8. The colors of the tape may be different from red and black; however, the wording of the  
problem must be changed appropriately.

D. COMPETITION SETUP

