



Odyssey of the Mind[®]

2014 ASSOCIATION FINALS

Hands-On Spontaneous Problem: Bridge Builders

A. *When the team members enter the room, tell them, "This is a hands-on problem. The five team members who will compete please step over to the competition area (indicate area). The others must sit quietly in these seats (indicate seats) and watch or leave the room. They cannot participate in any way."*

B. **JUDGE READS TO TEAMS:** (Do not read material in parentheses.)

- (1) This is a two part problem. You will have 6 minutes in Part I and 2 minutes in Part II. The judge will warn you when 2 minutes and when 1 minute remains in each part. You are allowed to ask the judges questions and talk to each other at any time.
- (2) There are two tables and materials to use to create your solution (*point to tables and materials*). You are not allowed to move the tables and nothing else can be used.
- (3) There are balls that you will use for score (*point to balls*).
- (4) **Your problem is to use the materials to build a bridge that spans across the tables and supports as many balls as possible** (*place yardstick across tables to demonstrate*).
- (5) **The materials can touch only the tops of the tables and each other.**
- (6) **In Part I you will build your bridge and may practice as you wish.** Part I is over when time ends or you ask to be scored. Any balls supported by the bridge during Part I must be removed before starting Part II.
- (7) **In Part II you will place the balls onto your bridge for score. The balls may only rest on the section of the bridge between the two tables** (*point to area between the two tables*) **and may not rest on any other area that supports the bridge.** (*Point to the area where bridge will rest on table*). You are allowed to adjust your bridge while placing the balls, but time will continue.
- (8) **You will be finished when you have placed all the balls and ask to be scored or when time ends.** Once you ask to be scored you are not allowed to touch your solution.
- (9) You will be scored as follows:
 - a. You will receive 10 points if your bridge spans the gap between the tables.
 - b. You will receive 2 points for each ball that is supported by the bridge.
 - c. You will receive 1 to 10 points for the creativity of your solution.
 - d. You will receive 1 to 15 points for how well your team works together.

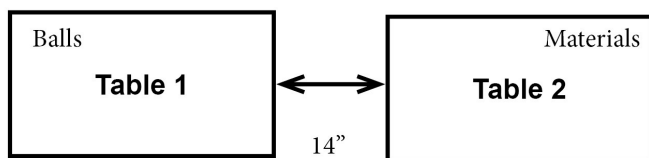
(After reading the entire problem aloud, repeat the items in boldface. Begin by saying, "I repeat. ")

C. FOR JUDGES ONLY:

1. Judges should discuss and practice solving the problem before the first team competes. Make any necessary decisions and or notes. All decisions must be applied uniformly to all teams.
2. Practice reading the problem out loud before the first team competes. When reading to the teams, illustrate the problem by pointing to items.
3. Place two copies of the Team’s Copy of the problem in full view of all team members before you read the problem to them. They may use them as a reference during the competition.
4. Use two tables of the same height. Place them 14" apart with one end parallel to an end of the other. See Figure A.
5. Before the team enters the room, place a box filled with 15 ping pong balls on one of the tables. On the other table, place a set of these materials for each team:

2 pieces of masking tape, 8" long	15 cotton swabs	20 toothpicks
1 paper napkin	2 paper cups, 4-6 oz.	2 pieces of string, 12"
6 rubber bands	4 plastic straws	1 sheet paper, 8.5" x 11"
10 metal paper clips	4 plastic spoons	2 unsharpened pencils
	5 pipe cleaners	
6. Be sure to give the team 8 minutes to solve the problem, 6 minutes for Part I and 2 minutes for Part II. Warn the team when 2 minutes and again when 1 minute remains in each part. The team can ask to be scored at any time in Part II.
7. If the bridge breaks during placement of the balls, the team should receive score for the balls that were supported up to that point. If the bridge spans the two tables at the end of Part I, give the team credit for it in 9a.
8. Teams may hang the cup from the string, put balls into the cup etc. as a method of placing balls on the structure. They may also use the paper as a holder, but they must make the bridge in Part I. They may also fix the bridge at any time during Part II and while they are placing balls, as long as there is time.
9. When judging **creativity of the solution**, assess the team's strategy, especially how they use the materials and how they place the balls onto the structure. Was there risk-taking involved? When scoring **how well the team works together**, consider the extent that all team members are involved in coming up with ideas, working on the bridge, placing the items, etc.
10. If it is obvious that the team does not understand the problem, provide information to clarify the problem's intent and its limitations. Do not help teams solve the problem, but you should help confused teams understand the problem.

Figure A



Team's Copy

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