

Hands-On Spontaneous Problem: Shuffleboard

A. When the team members enter the room, tell them, "This is a hand-on problem. All team members may compete. Those who choose not to participate 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. In Part I you will have 5 minutes to create a solution and practice. You may talk and ask questions during practice time however time will continue. In Part II, you will have 3 minutes to demonstrate your solution.
- 2. There are three squares in front of you, a taped line, and a container of scoring items (point to each). Your problem is to develop a system that will get as many scoring items as possible into the three squares.
- 3. Only the building objects (point to objects) may be used to complete your solution. You may not move the taped set up.
- 4. You may not destroy any building objects that are marked with a colored label.
- 5. Part I will end when you time is up or you have asked to move on to part II.
- 6. In part Π , you will work as a team to move the scoring items from behind the taped line into the three taped squares. Once part Π begins, no team members' feet may cross the taped line.
- 7. Once an attempt is made, the scoring object must stay on the other side of the taped line. You may not retrieve any scoring object that has been attempted. You will get points based on the number of scoring objects within the three squares at the end of your time.
- 8. You will be done when time has been called or you have attempted all of the scoring materials.

9. You will be scored as follows:

- (a) 2 points for each scoring object inside the outer square
- (b) 5 points for each scoring object inside the middle square
- (c) 10 points for each scoring object inside the inner square
- (d) You will receive 1 to 15 points for the creativity of your transportation system
- (e) You will receive 1 to 10 points for how well your team works together. (After reading the entire problem aloud, repeat the items in boldface. Begin by saying, "I repeat." After reading boldface items, say "Begin Part I Practice time now. Then, for Part II say "Begin Part II Solution time now.)

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. Set up the competition area as shown in Figure A. Tape a 3x3 ft square with an internal 2x2 and 1x1 square inside as shown in the figure below. Tape a starting line 3ft away from the 3x3 square. Place the scoring materials in one container within the 3x3 box and place the building materials by the starting line.
- 5. Scoring Objects:
 - For division one or less experienced teams use 10 metal washers or something that does not roll but will slide
 - For older and/or more experienced teams use 10 balls that will either bounce or roll
- 6. Building Materials:

3 plastic cups4 paper napkins

- 2 spatulas

- 1 hat

- 1ft of masking tape

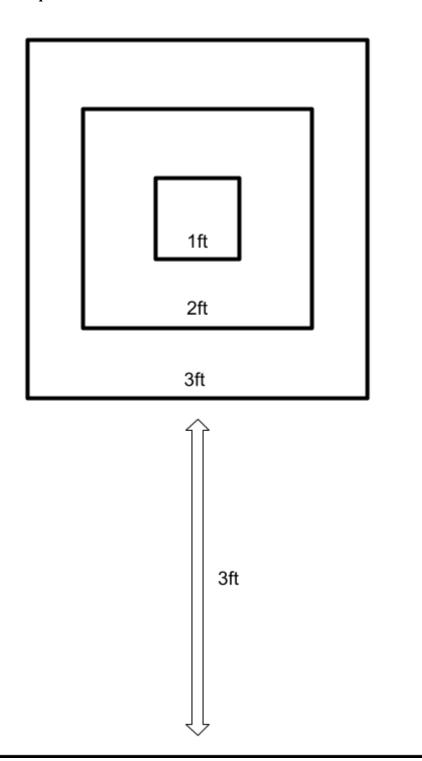
- 1 stuffed animal

- 2 toilet paper rolls

- 1 spatula

- 7. Teams may leave building items on the taped squares at the end of part $\, {\rm I} \,$ to act as a backboard during part $\, {\rm II} \,$.
- 8. Nothing other than the items given may be used to solve the solution
- 9. Be sure to give each team exactly 5 minutes to create its solution in Part I and 3 minutes to test it in Part II.
- 10. When scoring **creativity of the solution**, assess how the team uses the materials to solve the problem, the variety of ideas considered, etc. When scoring **how well the team works together**, consider the extent that all team members are involved in developing the solution: Did the team delegate duties? Share ideas? Did the team members value one another's input?
- 11. If it is obvious that the team does not understand the problem, you should provide information to clarify the problem's intent and its limitations. **Do not offer tips on how to solve the problem.**

Figure A Site Setup



Team Copy

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