

Name: _____

ID: _____

Course: Psych 1200 Section: _____

Date: _____

Simulation: Barriers to Rational Thinking

1. Define *representative failure*.
2. Nine-dot problem: Why do many people assume that the lines must be drawn within the square formed by the dots?
3. When does *confirmation bias* occur?
4. Define *functional fixedness* and give a real life sample that you've experienced.
5. How many uses can you think of for a brick? List as many as you can, and demonstrate that you can overcome *functional fixedness*.

Simulation: Algorithms and Heuristics

1. Give an example to explain how an *algorithm* works.
2. How would you solve the “cross a river” problem? Please try to answer before checking the 3rd slide of Heuristic: Subgoal Analysis section.
3. What is *means-end analysis*?
4. Try the Tower of Hanoi from the 2nd slide of Heuristic: Means-end Analysis and write down your result. Please explain your strategy briefly.

Time of Completion (minutes):

5. How would you apply a *working backward* strategy to solve the multiplying dandelions problem? Please use your own words to answer this question.

Experiment: Mental Rotation

1. What is the result of the mental rotation study conducted by Shepard and Metzler (1971)? What did they find from the study?
2. What is the hypothesis of this experiment? (you are going to try from Live!Psych)
3. Write down your results and compare it. Does your data support your hypothesis of the time it would take you to respond to each trial and the accuracy of your response? Why or why not?

Rotation of the figure from upright	Average Time	% Correct Responses
0°		
90°		
180°		

4. How can thought processes be observed? (Hints: contrast techniques)