

Name: _____ Date: _____ Class: _____

Pre/Post-Quiz

1. Which polygon(s) create the strongest structure?
a) square b) hexagon c) circle d) triangle e) trapezoid
2. What are tension forces?
 - a) forces transmitted when an object is pulled equally from each end
 - b) forces transmitted when an object is pulled more strongly from one end of an object than another
 - c) forces transmitted from pulling from only one end of an object
3. What are normal forces?
 - a) the component of the force parallel to the surface of contact (plane)
 - b) the component of the force at a 45 degree angle to the surface of contact (plane)
 - c) the component of the force perpendicular to the surface of contact (plane)
4. Explain what a flexure test does.
5. Describe how you can complete a flexure test in our classroom.
6. Why would you use a scatter plot to graph the results of your testing data?
7. What do you think is the most important step in the engineering design process and explain your answer.
8. Using your knowledge of polygons, what polygon will you incorporate into your sled stick design? Why?