

Name:

Date:

Class:

Team: \_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_  
Group/  
Section: \_\_\_\_\_

### Investigative Questions

(1). When you were doing the truss strength calculation, were all the truss elements under the same compression-stress?

(2). Did you notice any difference when you changed a round element by a square elements of the same thickness, or vice versa?

(3). Can you estimate how much?

(4). Why do you think the square element is stronger?

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(5). How many times is the area of a square of side  $L$  greater than the area of a circle of diameter  $L$ ?

(6). Considering your answers to the previous questions, what can you do to increase the strength of your bridge, without changing all the diagonal elements, and keeping the thickness requirement?