

Popsicle Bridges Pre-/Post- assessment

1. There are several different types of forces that act on bridges. In Column A four of these forces are listed using their technical term. Draw a line to connect each technical term with its more common definition in Column B.

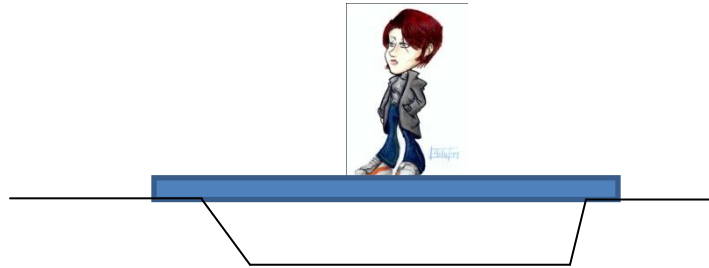
Column A

Shear
Compression
Torsion
Tension

Column B

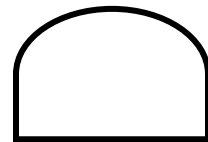
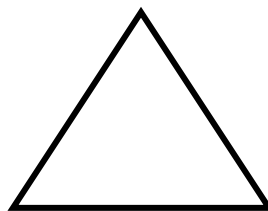
Stretching
Sliding
Twisting
Squeezing

2. On the simple beam bridge shown in the drawing label the forces that are acting on the center and the ends of the beam.



3. If the person standing in the middle of the bridge weighs 60 kgs, how much weight must be supported by each end of the beam

4. Which shape shown below (if constructed using the same materials and dimensions) will provide the strongest form of truss.



Popsicle Bridges Pre-/Post- assessment

5. Identify the 4 basic bridge designs shown in the pictures



A. _____



B. _____



C. _____



D. _____