







**Questions:**

1. What is the difference between tension and crushing? They are opposites of each other. Tension is the force that pulls an object apart from each end.
2. A) What is shearing? The force which acts to cut or tear an object.  
 B) Give an example of a material that is easily sheared. ex. paper  
 C) What malleable material allows it to be sheared? Explain. Metals. For example aluminum foil is so thin, it can easily be cut or torn.
3. In the table below, write the type of constraint described and draw its symbol.

Description	Constraint	Symbol
1. Sandra and Melanie are going to twist the towel that fell in the water to wring the water out of it.	<i>Torsion</i>	
2. Rachel is stretching the plastic wrap over the bowl of macaroni she has made.	<i>Tension</i>	
3. The weight of the snow has bent the metal fence at the bottom of the yard.	<i>Deflection</i>	
4. Aviation snips can be used to cut sheet metal.	<i>Shearing</i>	
5. A hammer blow has left a mark on the wooden worktable in the technology workshop.	<i>Compression</i>	
6. Gerald is finding it difficult to drive a screw through a knot in a wooden plank.	<i>Torsion</i>	

#6- While the screw itself is being twisted by the screw driver, compression is also accepted because the screw is being pushed into the wooden plank.

4. Which type of deformation do the following statements describe?

a) The hood of a car was bent in a collision.

plastic

b) A flagpole was broken during a windstorm.

fracture

c) David screwed a decorative switch plate onto the wall too hard, and the switch plate cracked.

fracture

