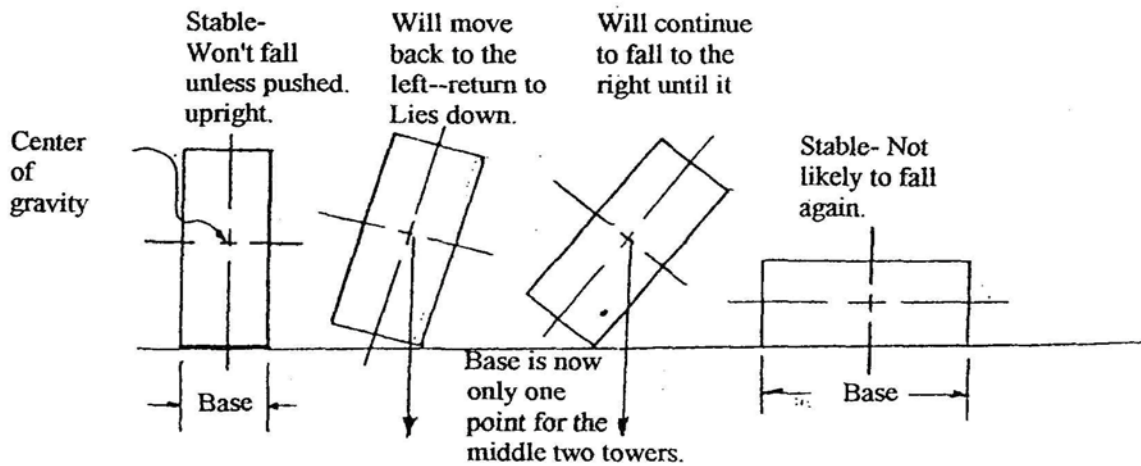


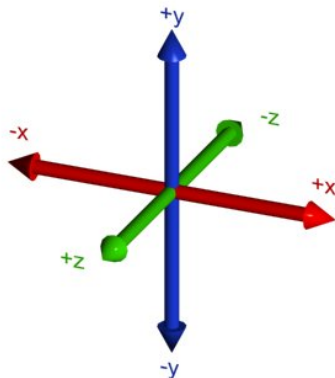
Structures Handout Center Of Gravity

A building, or any other structure, can remain standing only if its **center of gravity** is directly over the perimeter of its base as defined by the most extreme points at which it touches the ground.



Another way to understand the concept of **center of gravity** is that it is the balancing point of an object or a structural system. If we could attach a string to the building or structure and hang it so that it would balance on each of its three axis (its x , y , and z axis) the point at which the string would be attached would be its center of gravity.

The center of gravity of a symmetrical object or structure will be located at its geometric center.



Center Of Gravity Homework Questions

1. Why would a structure that is wider at its top than at its base be more difficult to keep from falling than one that is widest at its base?

2. Why can we expect the "Leaning Tower of Pisa" to fall down unless it is straightened out?
(Note: Currently, the "Leaning Tower of Pisa" is being pulled back with steel cables.)

3. Make a quick sketch below of the tower pictured to the right.
Place an **X** at the point that you think the center of gravity would be located.



4. Why do you think the center of gravity is located at this point and no higher or lower or farther left or right?
