

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## The Fine Line Worksheet

1. What is the center of mass?
2. What is equilibrium and when does it occur?
3. Why is symmetry useful when trying to balance an object?
4. What happens to an object in stable equilibrium if you push or pull it a little bit?
5. What happens to an object in equilibrium if you push it or pull it too much?  
Why?

6. Is the center of mass always in the center?  
Give an example of when it is not in the center.  
Why is this?

7. For the object below to be in equilibrium, what are the missing force amounts?  
Note: The arrows representing the forces line up. (Use units of kg.)

