

## Vocabulary: Center of Mass



### Vocabulary

- Center of mass – the mean position of all the mass in a system.
  - The center of mass is the point at which all the mass of a body or system can be considered to be concentrated when analyzing the motion of that body or system.
  - Two-dimensional objects are able to balance on their center of mass.
- Mean – a number that represents the center of a set of numbers.
  - The mean of a data set is found by dividing the sum of the data by the number of pieces of data.
  - For example, the mean of the data 4, -4, -5, 7, 10 is:  $(4 + -4 + -5 + 7 + 10) / 5 = 12 / 5 = 2.4$ .
- Weighted mean – a mean in which each piece of data in a set is weighted based on the item's relative size or importance.
  - To "weight" a piece of data, multiply it by a number representing the datum's size or importance.