## Exploring Ratios

Try making playdough balls with ratios that mirror real objects in space.


## Earth and Moon

100 to 1 mass ratio
The Earth-Moon barycenter is within Earth. The Moon is 1\% the mass of Earth.

## Try: 100g to $\mathbf{1 g}$

## Pluto and Charon

100 to 12 mass ratio
Pluto is the only planet-dwarf or otherwise-in our solar system with a barycenter outside of its surface. Its moon Charon is 12\% the mass of Pluto.

## Try: 100g to 12g



## Binary Asteroid, 90-Antiope

1 to 1 mass ratio
These two asteroids share a barycenter almost exactly between them. The two asteroids have the same mass.

Try: 50g to 50g

