

Object	Weight (g)	Frontal Area (cm ²)	Predicted wind speed (km/hr)	Actual wind speed (km/hr)	Predicted movement	Observed movement
Small Ball						
Medium Ball						
Large Ball						
Rugby Ball						
Rocket						
Water						
Boomerang?						

1. Use the scale to measure the mass of the ball

$m = \text{_____ g}$

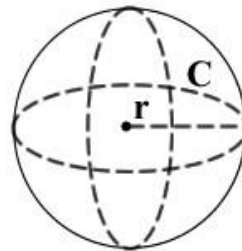
2. Measure the circumference (C) of the ball

$C = \text{_____ cm}$

3. Find the radius of the ball (see rearranged formula below)

$C = 2\pi r$

$r = \frac{C}{2\pi}$ $r = \text{_____ cm}$



4. Use the radius to calculate the frontal area (the area the wind “sees”) $A = \pi r^2$

5. With your group, discuss how area and weight would contribute to the ball’s terminal velocity.

6. How does your ball compare to those of the other groups?

$A = \text{_____ cm}^2$