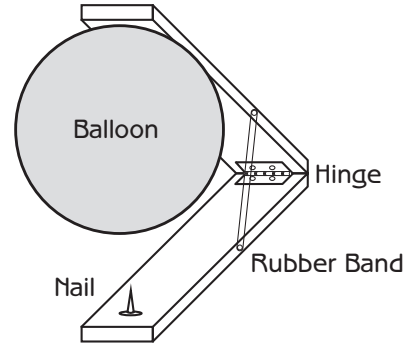


Microgravity Balloon Buster

1. Identify the forces acting on the Balloon Buster just before it is dropped.

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

Hint: There may be less than five forces.



2. Air resistance has what kind of effect on the falling Balloon Buster?

- a) Large
- b) Medium
- c) Small
- d) Almost none

4. While it is falling, what force causes the Balloon Buster to close?

3. When or where in the fall does the balloon pop?

- a) Right after it is released
- b) Half way down
- c) When it hits the ground or floor
- d) The balloon does not pop

5. Explain why the Balloon Buster does not close before it is dropped.

Extra Credit

6. Why do the astronauts seem to be weightless while on orbit?

7. Are the orbiting astronauts really weightless? Yes No

8. When the astronauts are in a low Earth orbit, what is the approximate gravitational acceleration compared with that on the surface of Earth?

- 0.0009% 0.009% 0.09% 0.9% 9% 90% 900%

Learn more about microgravity science and NASA Glenn on the World Wide Web at: <http://microgravity.grc.nasa.gov>



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