

Week 8 Zero-g

What is True Free-Fall like?

1. Have you ever been in a car that goes too fast over a hill and catches some air? Or ridden a Free Fall ride? That's the feeling of weightlessness. That's what zero-g feels like. That's what the astronauts feel like 24/7!

Describe that feeling



THOUGHT EXPERIMENT: you're in an elevator, holding a bag of groceries. You push the button to go down and **SNAP!** the cable breaks. As you begin to fall, you feel that weightless feeling, scream and let go of the groceries. Do they...

- Go up.
- Go down.
- Stay where they are because they fall with you.

HINT: Do heavier objects fall faster than light ones if drag is not a factor?



Same thought experiment. What if you were standing on a scale - what would it read?

- More than your weight.
- Same as your weight.
- Less than your weight (but not zero.)
- Zero.

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