

Downhill Race

Which wheel will roll downhill the fastest?

Try this:

- Choose any two wheels. Make a prediction: Which one will reach the bottom first?
- Start both wheels at the top of the ramp and let them go at the same time.
- Please put the wheels back in the rack when you're done.

What's going on?

When objects roll downhill, it's not just their weight that determines their speed, it's also how that weight is distributed.

When weight is located far from the center of the wheel, the wheel is harder to get rolling. So even though they may weigh the same, a metal disk will accelerate downhill faster than a metal hoop because the hoop's weight is farther from the center.