

Wk 3 1st Law

4 Things Don't Always Keep Up

1. Explain why the headrest is needed as a safety device for rear-ending accidents. DO NOT SAY THAT YOUR HEAD GOES BACKWARDS.

2. For each of the videos at mrmont.com, classify them according to how well the object released kept up, and what force slowed them down.

a) A Bridge Too Far Movie: the paratroopers.

- Kept moving forward at a constant speed.
- Kept moving forward but slowed down.
- Slowed down almost immediately after release.

Force responsible:

b) Mythbusters Car Eject Seat: Buster the Crash Test Dummy.

- Kept moving forward at a constant speed.
- Kept moving forward but slowed down.
- Slowed down almost immediately after release.

Force responsible:

c) Matrix Movie Helicopter Scene: Neo releases Morpheus.

- Kept moving forward at a constant speed.
- Kept moving forward but slowed down.
- Slowed down almost immediately after release.

Force responsible:

d) Airplane drops flare: The flare.

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