

Errata Nelson Physics 12 Chapter 5

Section 5.2 – Review #6 – pg. 232 (incorrect answer)

The should rebound with the same speeds they collided with (each posses a momentum of $3mv$)

The final speed of the larger mass will be ~~three times~~ **(1/3)** the final speed of the smaller mass, and in the opposite direction.

Or

The final speed of the **smaller mass** will be three times the final speed of the **larger mass**, and in the opposite direction.

$$\vec{v}_{f1} = -3\vec{v}_{f2}$$

$$\frac{\vec{v}_{f1}}{3} = -\vec{v}_{f2}$$

Link: <https://phet.colorado.edu/en/simulation/legacy/collision-lab>

Section 5.4 – Review #4 – pg.248 (2 errors, some textbooks are missing the initial velocity of one of the space debris, and incorrect information is given about the question)

- Two chunks of space debris collide head-on in an elastic collision. One piece of debris has a mass of 2.67 kg **and travels at an initial velocity of 167 m/s.**
- The space debris colliding is not a head-on collision; it is a rear-ended collision.**

