

1. Momentum has [Hide answers](#)

- magnitude  direction  magnitude and direction ✓  neither magnitude nor direction

2. Momentum is [Hide answers](#)

- inertia  motion  inertia in motion ✓   $p = ma$

3. Newton's Second Law: [Hide answers](#)

- $F = \Delta p / \Delta t$  ✓   $F = mv$    $F = \Delta p \cdot \Delta t$    $F = m/a$

4. A flower pot hit you in the head. Which will hurt more? (same masses & initial speeds for all) [Hide answers](#)

- all momentum evenly transferred from the pot to your head  pot hits your head and bounces ✓  collides perfectly inelastically  flower pot misses

5. Momentum is [Hide answers](#)

- summative  multiplicative  conserved ✓  diffused


6. The total momentum of all bodies remains constant for a(n) \_\_\_\_\_ system

 Hide answers


- isotropic  homogeneous  inertial  isolated ✓

7. Which has the greatest impulse?  Hide answers


- Collision brings car from 65 mph to 0 in 2 seconds  Collision brings same car from 65 mph to 0 in 1 second ✓  
 Both are the same ✓  Need more info

8. Which experiences the greatest force?  Hide answers

- Collision brings car from 65 mph to 0 in 2 seconds  Collision brings same car from 65 mph to 0 in 1 second ✓  
 Both are the same  Need more info

9. You jump off the table and hit the ground. When would you experience the greatest impulse?  Hide answers

- Keeping your knees locked as you hit the ground  Bending your knees as you hit the ground ✓  Both are the same ✓  
 Need more info

10. You jump off the table and hit the ground. Which would hurt the most?  Hide answers

- Keeping your knees locked as you hit the ground ✓  Bending your knees as you hit the ground  Both are the same  
 Need more info

Kah?ot!

1. In a perfectly inelastic collision [Hide answers](#)

kinetic energy is conserved

energy is not conserved

the objects stick together after colliding ✓

objects collide w/o transferring energy via heat or sound

Kah?ot!

2. How would we typically classify a collision between two billiard balls? [Hide answers](#)

elastic ✓

inelastic

perfectly inelastic

plastic



3. How would we typically classify a collision during a football tackle? [Hide answers](#)

elastic

inelastic

perfectly inelastic ✓

plastic



4. The cue ball hits the 8 ball (initially at rest) dead on. It's likely the cue ball will

[Hide answers](#)

bounce backward

be brought to rest ✓

continue forward

explode

Kah?ot!

5. A train car collides with and attaches to two identical cars already connected and at rest. [Hide answers](#)

$v_f = v_i$

$v_f = (1/2)v_i$

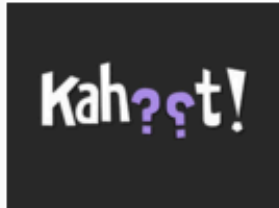
$v_f = (1/3)v_i$  ✓

$v_f = (1/4)v_i$



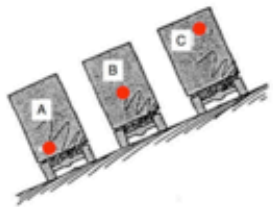
6. You toss a tomahawk. Though it may rotate as it flies through the air, the path is parabolic [Hide answers](#)

- if you follow the center of gravity ✓  only if you throw it without rotation  only if the tomahawk is symmetric  never. It won't be a parabola



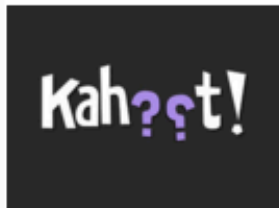
7. Technically, the Earth revolves around [Hide answers](#)

- the Sun  nothing  the Earth-Sun center of mass ✓  the Moon



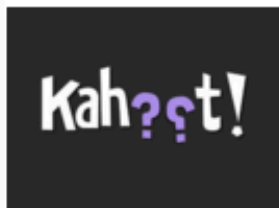
8. The red dot represents the centers of gravity of each box. Which box will likely tip over? [Hide answers](#)

- A  B  C  None ✓



9. A light body and a heavy body both have the same kinetic energy. Which has greater momentum? [Hide answers](#)

- Light body  Heavy body  Both the same ✓  Need more info



10. A perfectly inelastic collision in reverse (one object separates into parts) is called a(n) [Hide answers](#)

- inverted collision  explosion ✓  elastic collision  bounce