

Name: _____ Date: _____

m_r^β **Physics Practice: Guided Notes: Newton's Laws and Linear Momentum**

1. Newton's First Law says...

2. Linear momentum measures...

3. The equation for linear momentum is...

4. Changing the linear momentum of a given mass implies what about its motion?

5. Changing velocity implies what about acceleration?

6. Newton's Second Law says...

7. So if a mass changes its momentum, what can we conclude has happened?

8. The linear momentum of a system of objects is

9. The law of conservation of momentum says that...

10. How does Newton's first law imply the law of conservation of momentum?

11. A sprinter has mass 80kg and is moving to the right at 12 m/s (about 27mph). What is his momentum?

12. A car has mass 1500kg and is moving to the left at 30 m/s (about 67mph). What is its momentum?

13. What is the combined momentum of the sprinter and the car?