

Mechanical Universe HS CONSERVATION OF MOMENTUM 16



Read the following questions before the video begins. Answer the questions while the video is in progress. This is an INDIVIDUAL effort, so complete it by yourself.

DON'T ASK OTHERS FOR ANSWERS since doing so would be cheating.

Most of the important information (and answers to the questions on this sheet) is in the text spoken during the presentation. So don't become entranced by the visual imagery; concentrate and stay focused on the words!

1. When no _____ act on a system, momentum is conserved.

2. The principles involved in conservation of momentum originated (as did pocket billiards) in

A. Chalky's Billiard Academy
D. France

B. Italy
E. Germany

C. England
F. Michigan

3. Newton's classic work is called

A. *The Starry Messenger*
C. *The Revolution of Heavenly Orbs*

B. *The Harmony of the Worlds*
D. *The Principia*

4. When the vector p is constant, the _____ is constant.

5. The total _____ of the two balls taken together does not change.

6. Conservation of momentum applies to

A. a single body only B. two bodies only C. any number of bodies

7. When a moving ball hits a stationary ball, the two can come off at _____
_____ to each other. That's one possibility.

8. When a moving ball hits a stationary ball, another possibility is that one ball

_____ and gives all its momentum to the other ball.

9. The music played at Chalky's Billiard Academy is

A. Hot Latin Salsa
D. Blues

B. Banjo Dixieland
E. Electronica

C. Acid Jazz
F. Speed Metal

10. No question, free point!

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1. When no _____ act on a system, momentum is conserved.

2. The original enunciation of conservation of momentum came from

- A. Galileo Galilei B. René Descartes
C. Nicolaus Copernicus E. Isaac Newton

3. Newton used the word motion to mean _____

4. When billiard balls collide, each ball exerts a momentary _____ on the other.

5. The single point to focus on is the _____ of _____

6. When a moving ball hits a stationary ball, _____ outcomes are possible.

7. When a moving ball hits a stationary ball, the two can come off at _____
_____ to each other. That's one possibility.

8. When a moving ball hits a stationary ball, another possibility is that one ball
_____ and gives all its momentum to the other ball.

9. The music played at Chalky's Billiard Academy is

- A. Brazillian Bossa Nova B. Ragtime C. Blues
D. Afro-Celtic Fusion E. Gangsta Rap F. Emo

10. No question, free point!