

Conservation of Energy

SPH4U

“For an _____ system, energy can be _____ into different forms, but it cannot be created or destroyed.”

Example: A ball is launched at 15 m/s horizontally from a ledge 15 m above the ground. What is the speed of the ball when it lands?

Total mechanical energy:

From energy conservation,

Other forms of energy include:

- _____
- _____
- _____
- _____
- _____
- _____
- _____

_____ causes kinetic energy to transform into thermal energy.

Example: A 20-kg curling rock slides in a straight line for 30 m. The coefficient of kinetic friction is 0.1. How much thermal energy is produced during the slide?

Textbook Questions:

- p. 197 #6
- p. 200 #13
- p. 201 #5, 6



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