

Energy Homework 2

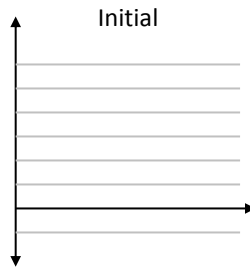
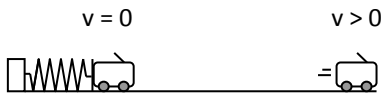
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Hour: _____ Date: _____

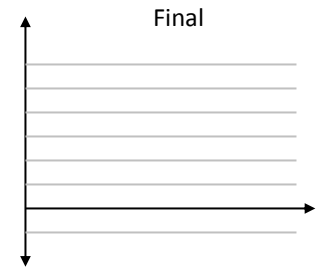
For each situation shown below:

- A. Show your choice of system in the energy flow diagram.
- B. Decide if your system is frictionless or not, and state this and then sketch an energy bar graph for the initial situation.
- D. Then complete the analysis by showing energy transfers and the final energy bar graph.

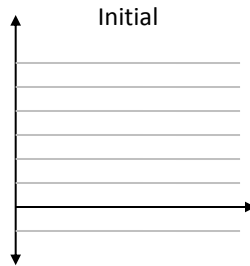
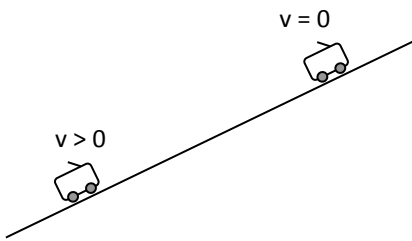
1. A car is propelled by a compressed spring.



Energy
Flow
Diagram



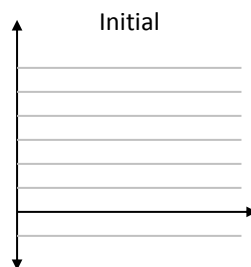
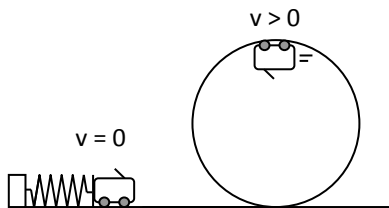
2. A car rolls to a stop while moving up a hill.



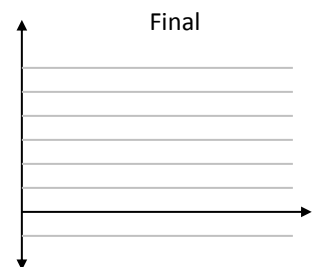
Energy
Flow
Diagram



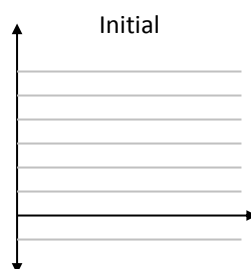
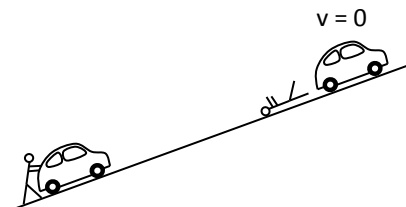
3. A cart is propelled through a loop by a compressed spring.



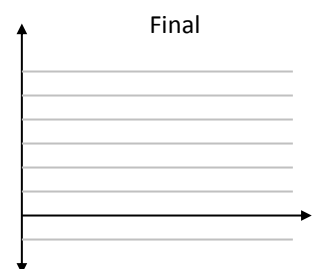
Energy
Flow
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4. A person pushes a car up a hill while the parking brake is on.



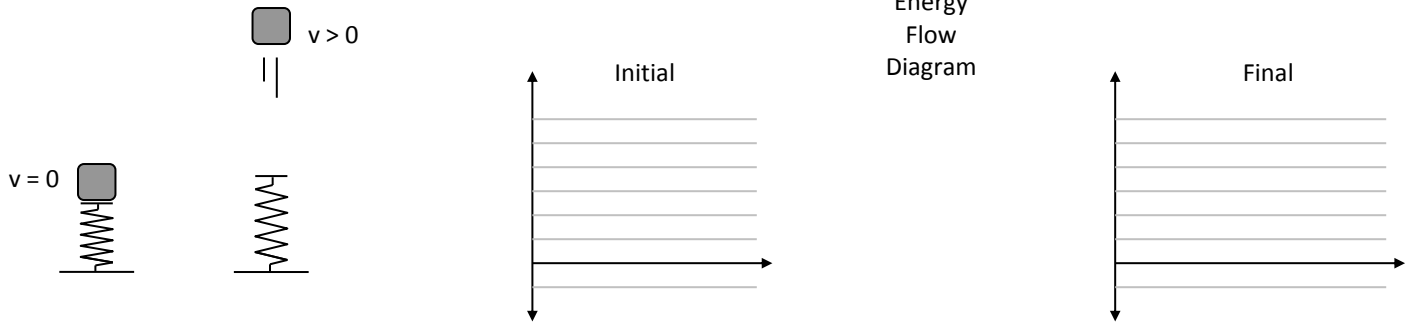
Energy
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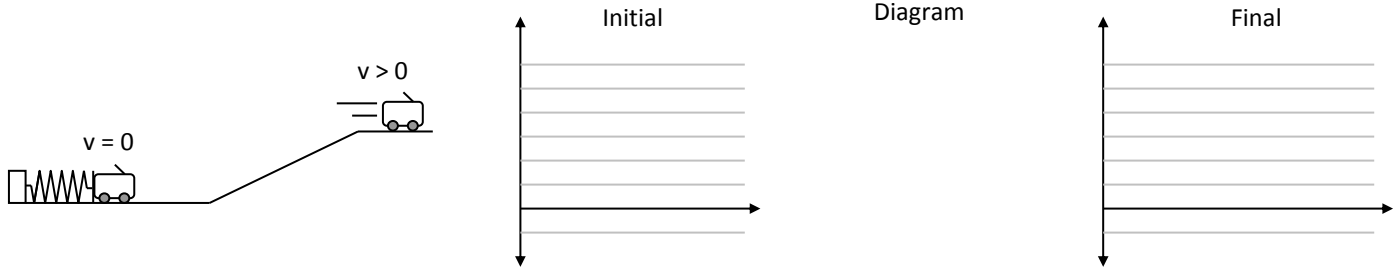
5. A block rests on a compressed spring and then is released launching it into the air.

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Flow
Diagram



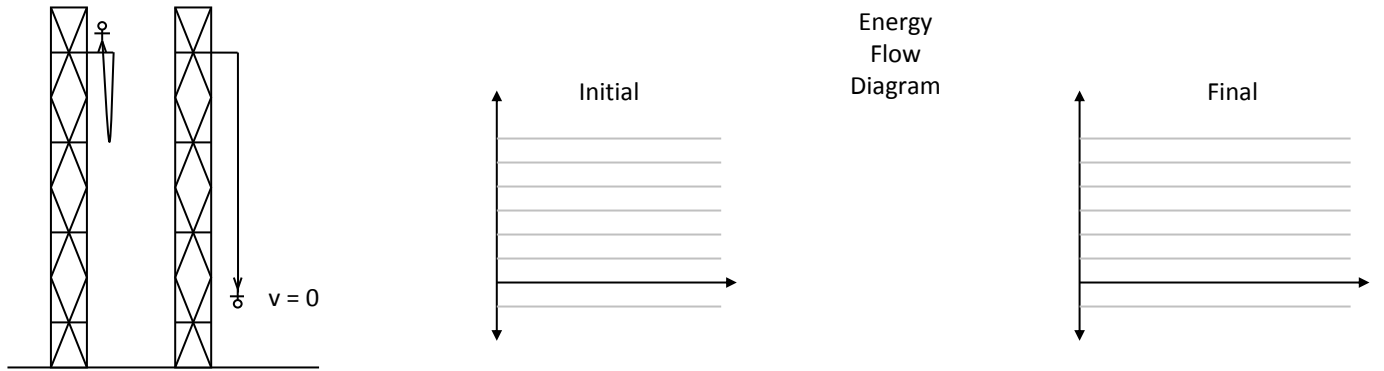
6. A cart is propelled up a hill by a compressed spring.

Energy
Flow
Diagram



7. A bungee jumper falls off the platform and reaches the limit of the stretch of the cord.

Energy
Flow
Diagram



8. An elevator, initially at rest, is raised upward by a motor.

Energy
Flow
Diagram

