Energy Video Possible Scenario Descriptions

1. Starting from rest, a box of mass **m** slides down a ramp of height **h**. While the box is on the ramp, it experiences an average force **F**. The length of the ramp is **d**, and the box comes to rest at the bottom.

2. A mass **m** at a height h is moving at a velocity **v**. After a period of time, the mass has fallen to ground level, and its motion has ceased because the mass has compressed a spring a distance **x**. The spring constant is **k**.

3. A mass **m** is initially moving with a speed **v**. A short time later, the mass has moved upward a height **h**, and it has come to rest after stretching a spring a distance **x**. The spring constant is **k.**

4. A spring stretched a distance **x** and with a constant **k** is used to launch a mass **m** horizontally with a maximum speed of **v**.

5. A force **F** is applied to a mass **m** over a distance **d**, causing the mass to move upward a height **h** without a change in its speed.

6. Mass m is initially at rest on the ground. A force **F** is applied to mass **m** over a distance **d**, causing three changes: the mass moves upward to a height **h**; a spring with constant **k** gets stretched a distance **x**; and the mass moves with a speed **v**.

7. A mass **m** with an initial speed **v** gains a height **h**, coming to rest in the process.

8. A mass **m** at a height **h**, moving at a speed **v**, moves to ground level and comes to rest, experiencing an average force **F** over a distance **d** along the way.

9. A force F is applied over a distance d, causing a spring with constant k to be stretched a distance x.

10. A mass **m** with speed **v** comes to rest while gaining a height **h** and experiencing negative work done by a force **F** over a distance **d**.

11. A mass **m** is launched from rest by a spring with constant **k** and a compression distance c. The mass experiences negative work done by a force **F** over a distance **d**, gaining a height **h** and attaining a speed **v** in the process.

12. Starting from rest, a mass **m** loses height **h** and experiences positive work by a force **F** over a distance **d**. The mass reaches a final speed of **v**.