32:35
1. A spring oscillates at 4 Hz. It is attached to a 2kg mass. Figure stuff out.

58:20
2. A horizontal spring with spring constant 10 N/m is compressed 3m and then released. The spring is attached to a 4kg mass.
(a) Find the maximum speed of the spring.
(b) How long will it take the spring to reach this speed?

1:16:30
3. A 2kg mass is moving at 3 m/s right when it hits and sticks to a 4kg mass attached to a spring with spring constant 5 N/m. Assuming no friction, how far does the spring end up compressing? (The 4kg mass is initially at rest.)

1:36:50
4. A 7kg object is moving right at 8 m/s when it hits and sticks to a 3kg object, initially at rest and hanging from a 3m long rope. How far up does the rope swing after the collision, and how long does it take to reach this maximum height?

1:52:20
5. A vertical spring is attached to a 50kg mass. The spring constant is 800 N/m. The difference in height between the highest and lowest points in the spring's oscillation is 0.5m. Find the maximum speed of the spring.