Consider two dimensions: x and y. The coordinates of the initial position are known. We are interested in the energy of the system at the initial state.

1. Calculate the energy of the system.

2. Write down the initial momentum in the x-direction for the system of particles.

3. Calculate the initial momentum in the y-direction for the system of particles.

4. Using the velocities and mass of each particle, calculate the momentum in the first section. Calculate the total momentum of the system at the initial state.

5. Work out the energy of the system of particles and surface of the objects.

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Consider the energy in the second dimension and the coordinates of the initial position. Determine the initial momentum in the x-direction for the system of particles. Write down the initial momentum in the y-direction for the system of particles.

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Consider the energy in the second dimension and the coordinates of the initial position. Determine the initial momentum in the x-direction for the system of particles. Write down the initial momentum in the y-direction for the system of particles.