## **Corona Week 2**

3. Kinetic E & Total Mechanical E



The softball player hits a pop-up fly with a velocity of \_\_\_\_\_ m/s straight upward.

Choose the ball's velocity to be between 10 and 40 m/s. The softball's mass is 0.2 kg.

- a) What is the Kinetic Energy of the softball?
- b) When the softball gets to its maximum height, what will its Kinetic E be?
- c) When the softball gets to its maximum height, what will its Gravitational PE be?
- d) Calculate the softball's maximum height above where it was hit.



The popper with mass \_\_ kg reaches a height of \_\_\_ m.

Choose the popper's mas to be between 0.1 and 0.3 kg. Choose the maximum height the popper reaches to be between 0.8 and 1.5 m.

a) How much Gravitational PE does the popper have at the top?b) How much Kinetic E did it start with on the ground before it rose to the maximum height?c) What must its start velocity have been?