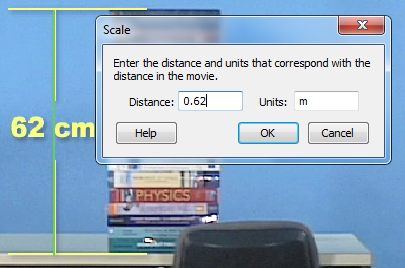
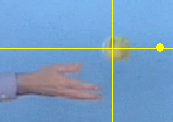
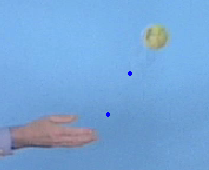
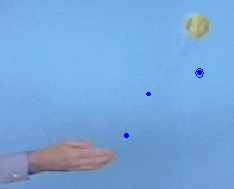
**Projectile Motion Video Analysis**

1. **Insert the movie to analyze**
   1. Open Logger Pro
   2. “Insert” 🡪 “Movie”
   3. “HS-StudentCommon” 🡪 “Noschese” 🡪 “College Prep” 🡪 “02\_ArcToss.mov”
2. **Pop-out the video analysis toolbar**
   1. Click the show/hide toolbar button at the right corner of the video window.
   2. The video analysis toolbar is now showing on the right side of the video window.
   3. If desired, resize the video window by clicking and dragging the corners.
3. **Set the scale**
   1. Click the “Set Scale” button on the video analysis toolbar.
   2. Click and drag between the two lines   
      that are 62 cm apart
   3. Enter the distance as 0.62 m
4. **Set the origin**
   1. Click the “Set Origin” button on the video analysis toolbar.
   2. Click a point on the video to set the   
      origin. The starting position of the ball   
      is a good location.
5. **Track the position of the ball in the video**
   1. Click the “Add Point” button on the video analysis toolbar.
   2. Click on the center of the ball. A blue dot will be placed were you clicked and the video will automatically advance one frame.
   3. Click again on the ball in its new position.
   4. Repeat until the video is over.
6. **If you make a mistake tracking the ball:** 
   1. Click the “Select Point” button on the video analysis toolbar.
   2. Click the blue dot you wish to delete.  
       A blue ring will appear around the dot.
   3. Press delete.
7. **If you need to move around within the video**, use the playback buttons or the scrubber.

Play

Stop

Rewind

Previous Frame

Next Frame

1. You will be done when you have 3 graphs – X position, Y position, and Y Velocity.
   1. To add additional graphs: “Insert” 🡪 “Graph”
   2. To change which quantity is graphed: Click the y-axis label and choose the desired quantity from the list.
   3. To rearrange the graphs to fit neatly on screen: Press CTRL-R
2. Use the “Analyze” 🡪 “Curve Fit” function to find the equation for each of the 3 graphs.
3. Use “File” 🡪 “Page Setup” to ensure printing in Landscape mode.
4. Print the page. Be sure to put your name in the pop-up window when prompted.

