

1. Why was it important to level the tower prior to dropping the ball?
2. Why is it important to measure the position of each dot from the beginning dot (reference line) rather than from each previous dot?
3. Sketch the shapes of your position versus time and velocity versus time graphs. Why is the velocity versus time graph a straight line?
4. The curve fit (regression equation) for one graph yields an equation that looks a lot like  $s = v_0t + (\frac{1}{2})at^2$  (Galileo's Law). Which graph is that? How is the acceleration extracted from that graph and equation?
5. Why can we not assume that the speed of the ball at your "zero time" is equal to zero?
6. Why does the regression line on the  $v$  vs  $t$  plot not go through each and every data point on the graph?