

## LAB: “Velocity vs. Braking Distance”

*Using safe driving techniques (and proper experimental techniques) in an empty parking lot, determine your stopping distance and stopping time for initial speeds of 5, 10, 15, 20, 25, 30, and 35 mph (or at least four of these velocities – SPACED OUT, as time permits). Include this report in your lab book.*

- 1. Organize your data for speed, braking distance, and time in a data table. Create a column for acceleration as well.*
- 2. Calculate your average acceleration for each trial. Show your calculations and enter your results in your data table.*
- 3. Was your acceleration constant? Explain your results.*
- 4. Graph your results on a braking distance - time graph (how far and how much time it took you to stop).*
- 5. Graph your results on a velocity (speed) - time graph.*
- 6. What does each graph indicate?*

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- 6. What does each graph indicate?*