# Name: Calculating Acceleration using: Is the Speed Changing Data

1. Question: When will things accelerate? When will things decelerate? Give examples:

2. Calculate the acceleration of your classmates using from the starting point to the ending point using the formula**:**

Acceleration= Final Velocity- Initial Velocity

Time

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| **Classmate Name** | **Final Velocity** | **Initial Velocity** | **Time (s)** | **Acceleration** |
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1. Calculate the acceleration of cars:

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| **Car Name** | **Final Velcoity** | **Intial Velocity** | **Time (s)** | **Acceleration** |
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1. Calculate the Force of each car: Force=mass x acceleration

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| **Car Name** | **Final Velocity** | **Initial Velocity** | **Time (s)** | **Acceleration** | **Mass** | **Force=ma** |
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1. What cars had the most force when they hit the wall?
2. What kind of a car would you rather be in during an accident—a small mass car or a large mass car?
3. What happens to an objects force as it decelerates or slows down?
4. Would you rather be in an accelerating car or a decelerating car if you were in an accident? Explain using force.