

**THE MECHANICAL UNIVERSE**  
**Video 43 - Velocity and Time**

**Name:** \_\_\_\_\_  
**Class:** \_\_\_\_\_

1. What experiment was really the starting point of relativity?
2. In what year did Einstein develop the Theory of Relativity?
3. What does the parameter “gamma” ( $\gamma$ ) mean in relativity?
4. What is the basic premise of relativity?
5. Nothing travels faster than what value?
6. When speeds are added relativistically, their sum is always less than what value?
7. Explain how the  $\mu$  meson illustrates relativity:
8. Explain why there can be no absolute state of rest in the universe: