

Name: \_\_\_\_\_ Date: \_\_\_\_\_

$m_r^\beta$  **Physics Practice: The Lightspeed Express (Guided Notes)**

You are standing at the train platform for the new Lightspeed Amtrak. When the express train passes the platform, it is traveling at  $0.5c$ . To you, the train appears to be exactly as long as the platform. You have a friend on the train.

1. Does your friend perceive the train to be the same length as the platform? Explain.

2. From your friend's perspective, what implications does this have for the length of time it takes for the train to pass the station?