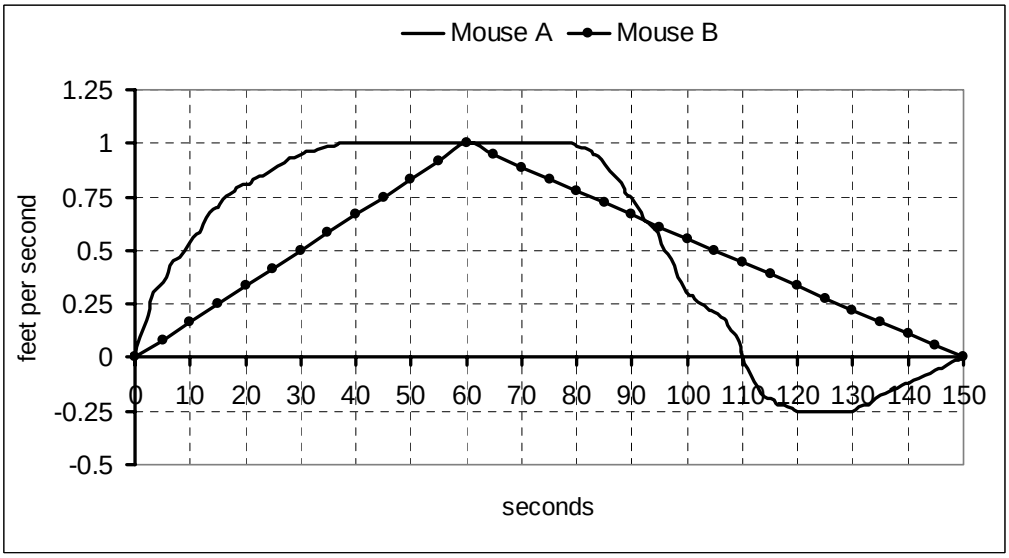
MICE NAME_____

Two mice are initially placed at the center of a 200 foot tunnel. Their velocities are recorded below. Assume velocity is positive when the mouse is moving to the right.



1. Explain in practical terms, the difference between $\int_{60}^{150} V_A(t)dt$ and $\int_{60}^{150} |V_A(t)|\,dt$.

2. At what time is mouse A farthest to the right? Estimate his location.

3. Estimate the average velocity of mouse B over the first 90 seconds.

4. Estimate the average acceleration of mouse B over the first 60 seconds.

5. At what time will the mice be farthest apart during the first 90 seconds?

6. When will the distance between the mice be increasing the fastest during the first 60 seconds?