

Name _____

Galaxies' Influence On The Motion of Stars and Planets

Open-Ended Response Questions

1. Imagine you are an astronomer studying the motion of stars within the central bulge of a spiral galaxy. Describe the kind of observations and measurements you would conduct and what insights you hope to gain.
2. Consider a scenario where a distant galaxy is interacting with our Milky Way. Discuss the potential consequences for the orbits of stars and planets within both galaxies and how these interactions might affect the overall dynamics of the cosmic dance.
3. Compare the motion of stars within a spiral galaxy's central bulge to those in its outer regions. What differences in orbits and dynamics might you expect to find, and how could they be explained by gravitational forces?
4. Reflect on the challenges and complexities of studying the influence of galaxies on the motion of stars and planets. What limitations do astronomers face in their efforts to unravel these celestial dances?

