

Name _____

Mitosis vs. Meiosis: A Cell Division Showdown

Open-Ended Response Questions

1. Imagine a scenario where an organism could only undergo either mitosis or meiosis but not both. How might this impact the survival and evolution of that species?
2. Compare and contrast the roles of mitosis and meiosis in the life cycle of a multicellular organism.
3. Discuss a real-life situation where genetic diversity resulting from meiosis played a crucial role in the adaptation of a species to its environment.
4. How might advances in our understanding of mitosis and meiosis benefit fields like medicine and agriculture in the future?

