

Name \_\_\_\_\_

## Chromosome Duplication and Segregation in Mitosis: The Dance of Cell Division

### Open-Ended Response Questions

1. Discuss a real-life scenario where the failure of chromosome duplication or segregation in mitosis could lead to health issues in an organism.
2. Imagine a world where mitosis did not exist. How might this impact the growth and repair processes in living organisms?
3. How can a better understanding of mitosis benefit medical research and the development of treatments for diseases?
4. Explain the role of chromosome duplication and segregation in the growth of a multicellular organism from a single fertilized egg cell.

