

Name _____

Mitosis: The Marvelous Mechanism for Growth and Tissue Repair

Multiple Choice Questions

1. What is the primary purpose of interphase in the cell cycle?
 - a) To replicate DNA
 - b) To prepare for cell division
 - c) To divide the cell into two daughter cells
 - d) To repair damaged DNA

2. During which phase of mitosis do chromosomes align along the cell's equator?
 - a) Prophase
 - b) Metaphase
 - c) Anaphase
 - d) Telophase

3. How does cytokinesis differ between animal and plant cells?
 - a) In animal cells, a cell plate forms.
 - b) In plant cells, a contractile ring pinches the cell's membrane.
 - c) In animal cells, a contractile ring pinches the cell's membrane.
 - d) In plant cells, a nucleus forms.

4. What is the significance of the G1 phase of interphase?
 - a) It prepares the cell for cytokinesis.
 - b) It replicates DNA.
 - c) It checks for errors in DNA and makes necessary repairs.
 - d) It supports overall cell growth.

5. Why is mitosis important for tissue repair in multicellular organisms?
 - a) It helps organisms grow during their early stages.
 - b) It enables the rapid division of cells to replace damaged or old ones.
 - c) It creates genetic diversity in offspring.
 - d) It produces haploid gametes for sexual reproduction.

