

Mitosis Quiz PDF

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Which phase of mitosis involves the alignment of chromosomes at the cell's equatorial plane?

- Prophase
- Metaphase
- Anaphase
- Telophase

In which phase do sister chromatids separate and move to opposite poles?

- Prophase
- Metaphase
- Anaphase
- Telophase

Which of the following is NOT a phase of mitosis?

- Interphase
- Prophase
- Metaphase
- Telophase

What structure forms in plant cells during cytokinesis?

- Cleavage furrow
- Cell plate
- Spindle fiber
- Centromeres

Which structures are involved in the separation of sister chromatids? (Select all that apply)

- Spindle fibers
- Centromeres

- Ribosomes
- Golgi apparatus

Which checkpoints are involved in the regulation of the cell cycle? (Select all that apply)

- G1 checkpoint
- S checkpoint
- G2 checkpoint
- M phase checkpoint

Which phases are part of the M phase in the cell cycle? (Select all that apply)

- Prophase
- Interphase
- Metaphase
- Cytokinesis

During which phase does the nuclear envelope begin to disintegrate?

- Prophase
- Metaphase
- Anaphase
- Telophase

What is the primary purpose of mitosis in multicellular organisms?

- Sexual reproduction
- Genetic variation
- Growth and repair
- Energy production

Which structure is responsible for organizing the mitotic spindle?

- Chromosome
- Centromeres
- Centrosome
- Ribosome

How does mitosis differ from meiosis? (Select all that apply)

- Mitosis results in two identical cells
- Meiosis results in four genetically diverse cells
- Mitosis is involved in sexual reproduction
- Meiosis is involved in growth and repair

Which of the following events occur during prophase? (Select all that apply)

- Chromatin condenses into chromosomes
- Chromosomes align at the metaphase plate
- Nuclear envelope disintegrates
- Spindle fibers attach to centromeres

What is the result of mitosis in terms of the number of cells produced?

- One identical cell
- Two identical cells
- Four identical cells
- Four genetically diverse cells

What are the functions of mitosis in an organism? (Select all that apply)

- Growth
- Repair
- Sexual reproduction
- Asexual reproduction