

Mitosis Quiz Answer Key PDF

Mitosis Quiz Answer Key PDF

Disclaimer: The mitosis quiz answer key pdf was generated with the help of StudyBlaze AI. Please be aware that AI can make mistakes. Please consult your teacher if you're unsure about your solution or think there might have been a mistake. Or reach out directly to the StudyBlaze team at max@studyblaze.io.

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

- A. Prophase
- B. Metaphase ✓**
- C. Anaphase
- D. Telophase

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

- A. Prophase
- B. Metaphase
- C. Anaphase ✓**
- D. Telophase

Which of the following is NOT a phase of mitosis?

- A. Interphase ✓**
- B. Prophase
- C. Metaphase
- D. Telophase

What structure forms in plant cells during cytokinesis?

- A. Cleavage furrow
- B. Cell plate ✓**
- C. Spindle fiber
- D. Centromeres

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

- A. Spindle fibers ✓**
- B. Centromeres ✓**
- C. Ribosomes
- D. Golgi apparatus

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

- A. G1 checkpoint ✓**
- B. S checkpoint
- C. G2 checkpoint ✓**
- D. M phase checkpoint ✓**

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

- A. Prophase ✓**
- B. Interphase
- C. Metaphase ✓**
- D. Cytokinesis ✓**

During which phase does the nuclear envelope begin to disintegrate?

- A. Prophase ✓**
- B. Metaphase
- C. Anaphase
- D. Telophase

What is the primary purpose of mitosis in multicellular organisms?

- A. Sexual reproduction
- B. Genetic variation
- C. Growth and repair ✓**
- D. Energy production

Which structure is responsible for organizing the mitotic spindle?

- A. Chromosome
- B. Centromeres

C. Centrosome ✓

D. Ribosome

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

A. Mitosis results in two identical cells ✓

B. Meiosis results in four genetically diverse cells ✓

C. Mitosis is involved in sexual reproduction

D. Meiosis is involved in growth and repair

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

A. Chromatin condenses into chromosomes ✓

B. Chromosomes align at the metaphase plate

C. Nuclear envelope disintegrates ✓

D. Spindle fibers attach to centromeres

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

A. One identical cell

B. Two identical cells ✓

C. Four identical cells

D. Four genetically diverse cells

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

A. Growth ✓

B. Repair ✓

C. Sexual reproduction

D. Asexual reproduction ✓