

Mitosis Quiz

Multiple Choice: Choose the term or phrase that best completes each statement or best answers each question.

- Chromosomes are _____.
 - genetic material
 - in all eukaryotic cells
 - condensed DNA
 - all of the above
- Sister chromatids _____.
 - are identical genetically
 - are similar genetically
 - are present in G₁
 - are pulled apart in metaphase
- Mitosis has _____ phases.
 - one
 - two
 - three
 - four
- The process where the cytoplasm divides is called _____.
 - anaphase
 - telophase
 - cytokinesis
 - prophase
- The stage in which the nuclear membrane disintegrates is _____.
 - fertilization
 - anaphase
 - cytokinesis
 - prophase
- The first three phases of the cell cycle are called _____.
 - mitosis
 - anaphase
 - interphase
 - synthesis phase
- Cell structures made of individual microtubule fibers that are involved in moving chromosomes during cell division are called _____.
 - centrioles
 - centromeres
 - spindles
 - chromatids
- Which one is true of Binary Fission?
 - It needs membrane bound organelles
 - It takes less time
 - It is more complex
 - It involves multiple chromosomes
- Which of the following shows the correct sequence of the cell cycle?
 - C → M → G₁ → S → G₂
 - S → G₁ → G₂ → M → C
 - G₁ → S → G₂ → M → C
 - none of the above
- Sister chromatids are _____.
 - dense patches within the nucleus
 - found in bacteria
 - joined strands of duplicated genetic material
 - formed in anaphase

True/False: After reading each sentence decide whether the statement is true or false. Correct each false statement to make it correct. For extra credit, draw a diagram of a chromosome next to your name on your answer sheet.

11. Chromosomes are the genetic material, which is passed on from one generation to the next.
12. A cell plate forms in cytokinesis in plant cells.
13. Cells are the basic units of life.
14. Cell spends most of their life in prophase.
15. Interphase is the division period of the cell cycle.

Matching: In the space provided, write the letter of the phase during which each event occurs. Some answers may be used more than once.

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|---------------|--------------|----------------|
| a. interphase | c. metaphase | e. telophase |
| b. prophase | d. anaphase | f. cytokinesis |

16. The nucleus begins to reform.
17. Chromatids separate at the beginning of this phase.
18. The chromosomes move toward the center of the cell.
19. A chromatid from each pair is now attached at each pole.
20. The cell grows rapidly.
21. Separate spindle fibers become attached to the centromeres of each chromosome.
22. Separate chromosomes are not clearly visible but the chromatin has become thicker and shorter.
23. A cell plate completely divides a plant cell.