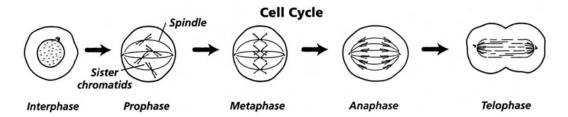
## **Mitosis Worksheet & Diagram Identification**

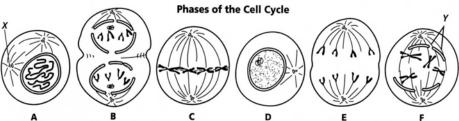


- 1. Chromosomes move to the middle of the cell during what phase? \_\_\_\_\_
- 2. When chromosomes separate? \_\_\_\_\_
- 3. During which phase do chromosomes first become visible? \_\_\_\_\_

Complete the table by checking the correct column for each statement.

| Statement   | Interphase | M Phase |
|---|------------|---------|
| 4. Cell growth occurs                                     |            |         |
| 5. Nuclear division occurs                                |            |         |
| 6. Chromosomes are distributed equally to daughter cells. |            |         |
| 7. DNA is doubled   |            |         |
| 8. Cytoplasm divides and 2 daughter cells are formed      |            |         |
| Mitochondria and other organelles are made.               |            |         |
| 10. Spindle fibers attach to centromeres of chromosomes   |            |         |

The following pictures **are not in the correct order**. Use the letters below the pictures to answer the questions below.



- 11. Which cell is in metaphase? \_\_\_\_\_
- 12. Cells A and F show the start and end of the same phase of mitosis. What phase is it?

\_\_\_\_\_

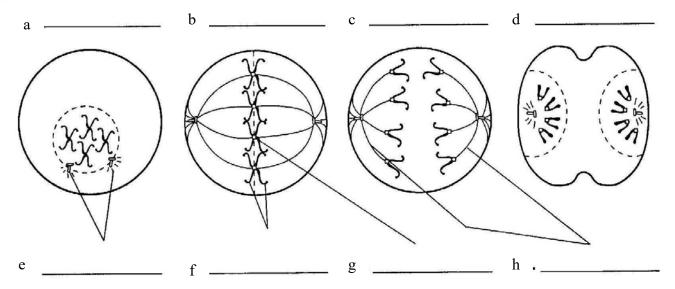
13. In cell F, what are the structures labeled Y? \_\_\_\_\_

- 14. Which cell is not in a phase of mitosis? \_\_\_\_\_
- 15. What two main changes are taking place in cell B? \_\_\_\_\_

- 16. What is the correct order of diagrams from first to last? \_\_\_\_\_
- 17. What is the end product of mitosis? \_\_\_\_\_

18.

Identify the following phases of mitosis. Use these choices: telophase, metaphase, anaphase, prophase. Then label the diagrams. Use these choices: sister chromatids, centromere, spindle fibers, centrioles.



- 19. Why is mitosis important?
- 20. Predict what would happen if an individual had spindle fibers that didn't work.
- 21. Predict what would happen if cytokinesis was skipped.