

# MITOSIS WORKSHEET

Name: \_\_\_\_\_

**Matching:** Match the term to the description

- I = interphase      P = prophase      M = metaphase      A = anaphase      T = telophase
- \_\_\_\_\_ 1. The sister chromatids are moving apart.      \_\_\_\_\_ 8. Animal cells begin to pinch in.
- \_\_\_\_\_ 2. The nuclear membrane fades from view.      \_\_\_\_\_ 9. The spindle is formed.
- \_\_\_\_\_ 3. A new nuclear membrane is forms.  
around the chromosomes      \_\_\_\_\_ 10. Chromatids line up along the equator.
- \_\_\_\_\_ 4. The cytoplasm of the cell is being divided.      \_\_\_\_\_ 11. Chromosomes are not visible.
- \_\_\_\_\_ 5. The chromatin is found in the nucleus.      \_\_\_\_\_ 12. Cytokinesis begins.
- \_\_\_\_\_ 6. The chromosomes are located at.  
the equator of the cell      \_\_\_\_\_ 13. The cell plate in plants **begins** to form.
- \_\_\_\_\_ 7. The spindles disappear.      \_\_\_\_\_ 14. The reverse of prophase.

**Fill in the blanks using the word bank below:**

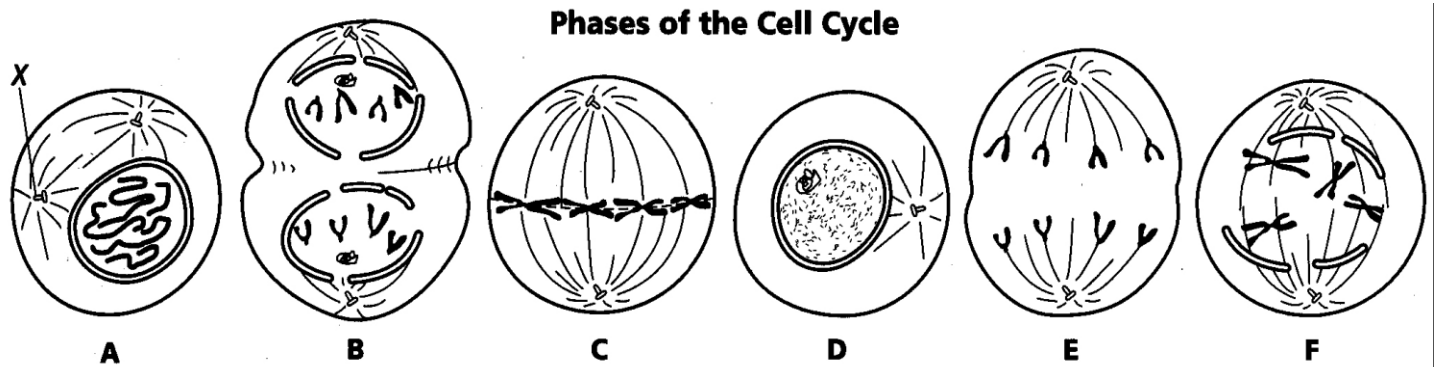
Interphase      Prophase      Anaphase      Telophase      Metaphase

Cytokinesis (2x)      Sister Chromatid      Centromere      Cell Plate

- \_\_\_\_\_ 18. In what phase does the cell begin to split the cytoplasm and daughter cells first become visible in mitosis?
- \_\_\_\_\_ 19. During what phase of mitosis do centromeres divide and the chromosomes move toward their respective poles?
- \_\_\_\_\_ 20. What is the phase where chromatin condenses to form chromosomes?
- \_\_\_\_\_ 21. What is the name of the structure that connects the two sister chromatids?
- \_\_\_\_\_ 22. In a chromosome pair connected by a centromere, what is each individual chromosome half called?
- \_\_\_\_\_ 23. What is the step of cell division where 2 identical daughter cells are formed?
- \_\_\_\_\_ 24. Which phase of the cell cycle occurs when the cell is preparing to divide so it grows in size making organelles and copying DNA?
- \_\_\_\_\_ 25. What forms across the center of a plant cell near the end of telophase?
- \_\_\_\_\_ 26. What is the division of the cytoplasm called?
- \_\_\_\_\_ 27. During this phase chromosomes line up in the middle.

# Mitosis Worksheet

The diagram below shows six cells in various phases of the cell cycle. Note the cells are not arranged in the order in which mitosis occurs and one of the phases of mitosis occurs twice. Use the diagram to answer questions 1-7.



- 1) Cells A and D show an early and a late stage of the same phase of mitosis. What phase is it?
- 2) Which cell is in metaphase?
- 3) Which cell is in the first phase of mitosis?
- 4) In cell A, what structure is labeled X?
- 5) Place the diagrams in order from first to last.
- 6) Are the cells depicted plant or animal cells? Explain your answer.
- 7) What is the longest phase of the entire cell cycle?
- 8) Why is mitosis important?