

Name: _____ Period: _____

4.3 Phases of Mitosis Review

1. Which of the following correctly lists the phases of mitosis in order?
- A. Prophase, Metaphase, Interphase, Anaphase, Telophase
 - B. Interphase, Prophase, Anaphase, Telophase, Metaphase
 - C. Interphase, Prophase, Metaphase, Anaphase, Telophase
 - D. Interphase, Prophase, Anaphase, Metaphase, Telophase

For questions 2-8, match the descriptive statement with its correct mitosis phase. Each answer choice can be used more than once or not at all.

_____ 2. Chromosomes are copied to make sister chromosomes, and centrioles appear and duplicate.

_____ 3. A cleavage furrow appears to divide the cell membrane into two, and two new nuclear membranes form.

_____ 4. Chromatin chromosomes condense to chromatids.

_____ 5. Sister chromatids align in the middle of the cell, and spindles attach to the centromeres of the sister chromatids.

_____ 6. Nuclear membrane (aka the nucleus) begins to dissolve, and spindles form between the centrioles.

_____ 7. A cleavage furrow forms in the nuclear membrane to create two nuclei in the parent cell.

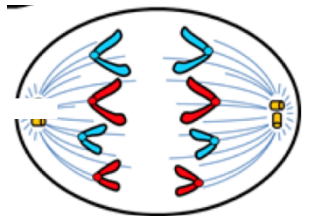
_____ 8. Spindles pull on sister chromatids to separate and pull them to opposite ends of the cell.

Answer choices for questions 2-8:

- A. Anaphase
- B. Interphase
- C. Metaphase
- D. Notaphase
- E. Prophase
- F. Telophase
- G. None of the above

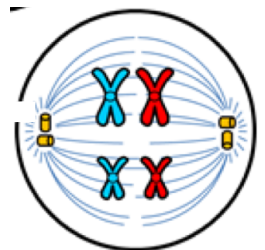
9. The phase of mitosis pictured to the right is anaphase. Is this statement correct? If yes, why? If no, why?

- A. Yes, because the diagram shows the chromatids duplicating in number and lining up in the middle.
- B. Yes, because the diagram shows sister chromatids separating toward opposite sides of the cell.
- C. No, because the diagram is showing telophase where sister chromatids separating toward opposite sides.
- D. No, because the diagram is showing metaphase where sister chromosomes duplicate and condense.



10. If the picture to the right is supposed to be metaphase, which of the following statements describes why this diagram is incorrect.

- A. The sister chromatids are not paired up with their correct sister "copy".
- B. The sister chromatids should be separating to opposite sides of the cell.
- C. The cell membrane has dissolved, but it should dissolve in telophase after metaphase.
- D. The sister chromatids should line up in the middle in one row not two.



For questions 11-15, match the vocabulary word with the answer choice indicated on the diagram. Each answer can be used more than once or not at all.

- _____ 11. Centriole
- _____ 12. Nucleus/Nuclear Membrane
- _____ 13. Sister Chromatids
- _____ 14. Centromere
- _____ 15. Spindles/Spindle Fibers

