

Cell Cycle/ Mitosis Unit Exam

Name and Date _____

Matching: match the term to the description

A. Prophase B. Interphase C. Telophase D. Metaphase E. Anaphase

1. Sister Chromatids are moving apart from one another. _____
2. The nuclear envelope disappears. _____
3. The nuclear envelope reappears. _____
4. Cytoplasm divides in this phase. _____
5. Chromatids line up along the middle of the cell. _____
6. The cleavage furrow appears. _____
7. Chromosomes are replicated and form two identical sets. _____
8. Chromosomes move towards opposite poles of the cell. _____
9. Chromosomes disappear from view. _____
10. DNA looks like loose spaghetti during this phase. _____

Visualize Phases: For each phase, draw a simple picture representing the phase.

Prophase	
Metaphase	
Anaphase	
Telophase	

Cytokinesis	
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Fill in the blank: answers from the answer bank may be used more than one time or not at all.

A) Prophase	B) Interphase	C)Telophase	D)Metaphase
E) Four	F) Centromere	G) Chromatid	H) Cytokinesis
I) Mitosis	J) Spindle Fiber	K) Cell Plate	L) Centromere

11. What phase are identical daughter cells in as a result of mitosis? _____
12. How many phases are there in the cell cycle? _____
13. What structure forms in prophase along which the chromosomes move? _____
14. Which phase of the cell cycle is characterized by a cell that is not dividing?

15. What forms across the center of a cell near the end of telophase? _____
16. In a chromosome pair connected by a centromere, what is each individual chromosome called? _____
17. What is the name of the structure that connects chromatids? _____
18. During what phase of mitosis do centromeres divide and the chromosomes move toward opposite poles? _____
19. During what phase of mitosis does the nuclear envelope disappear? _____
20. What is the phase where chromatin condenses to form chromosomes? _____

Short Answer: Answer the following questions in 1-3 complete sentences.

1. The cell cycle has four main stages. List these stages and what occurs during each.

2. Compare the differences in rates of cell division between a cell found in your small intestine and a neuron. Explain why these types of cells have different rates of division.

3. Describe how uncontrolled cellular division can be dangerous in organisms? What is this condition called?