

Name: _____

Unit 5 – Cell Growth and Reproduction

1. List the three reasons a cell divides:
 - a. _____
 - b. _____
 - c. _____
2. The longest phase of the cell cycle is _____.
3. In G1, they cell _____.
4. The DNA is copied during _____.
5. The last stage of interphase is _____.
6. The goal of mitosis is to get cells that are genetically _____. The chromosome number goes $2N \rightarrow 2N$
 - a. What does the “N” mean? _____
7. Write the stage of mitosis next to what is occurring in that stage.
 - a. Nucleus reforms, DNA loosens, last stage _____
 - b. Chromosomes line up in the middle of the cell _____
 - c. DNA condenses; nuclear envelope breaks down _____
 - d. Chromosomes move to opposite sides of the cell _____
8. What is the difference between plant and animal telophase/cytokinesis?
9. What cell part do animal cells have to help them complete cytokinesis?
10. The goal of meiosis is to get cells that are genetically _____. The chromosome number goes $2N \rightarrow 1N$
11. The cells at the end of mitosis are **diploid / haploid** and cells at the end of meiosis are **diploid / haploid**.
12. What is crossing over?
13. When does crossing over occur? _____
14. When chromosomes fail to separate, it is known as _____.
_____ syndrome and Patau syndrome are results of this.