**Cell Cycle Review Summarization**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a series of events a cell goes through as it grows and divides.

2. Humans have \_\_\_\_\_ total chromosomes, or \_\_\_\_\_ pairs of chromosomes. Chromosomes pass genetic material from one generation to the next. You get one pair of chromosomes from your \_\_\_\_\_\_\_ and one pair of chromosomes from your \_\_\_\_\_\_\_.

3. Label the following on the picture below: centromere, chromosome, sister chromatids



 4. Mitosis is an example of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reproduction.

 5. Mitosis begins with \_\_\_\_\_ “parent” cell and ends with \_\_\_\_\_ new

 “daughter” cells that are genetically \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the parent.

 6. Only \_\_\_\_\_\_\_\_\_ cells reproduce via mitosis. Examples of somatic cells include: muscle, blood, bone, and skin cells.

7. The purpose of mitosis in multicellular organisms is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ of damaged tissues. The purpose of mitosis in unicellular organisms is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

8. The cell cycle consists of three main phases:

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - which includes the G1, S, and G2 stages

 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - which is when the nucleus of the cell divides

 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - which is when the cytoplasm of the cell divides

9. Label the cell cycle below with the following: Mitosis, S phase, Cytokinesis, Anaphase, Metaphase, G1 phase, Telophase, G2 phase, Prophase,

10. List the phases of Interphase and what happens in each.

11. List the four phases of Mitosis, and summarize what happens in each.

12. What happens during cytokinesis?

13. What is the difference between an animal cell’s telophase and a plant cell’s telophase? Draw a picture and explain.