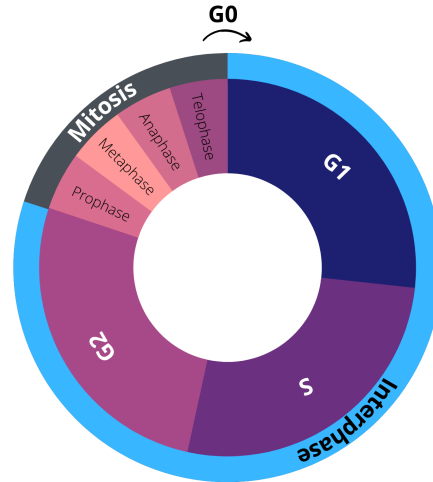


Name: _____

Date: _____

The Stages of the Cell Cycle



Give a brief description of each stage in the cell cycle

G1: The cell grows physically larger in size and at the end the cell makes sure everything is ready for DNA synthesis.

S: DNA replication occurs and the cell will make an extra copy of each chromosome.

G2: After replication the cell will check over the DNA and also ensure everything is ready to go to enter mitosis and finish dividing.

Prophase: The first stage of mitosis proper. The replicated DNA will condense into chromatin and the nuclear membrane will begin to disappear.

Metaphase: Chromosomes will appear and begin migrating to the center under the control of the centrioles connecting to the chromosome's kinetochores.

Anaphase: The chromosomes will split and the newly copied chromosomes are moved to the opposite side of the cell. This is the stage where the centromeres are split.

Telophase: As the chromosomes reach the end of the cell the nuclear membrane will start to appear and the chromosomes will begin to decondense. The mitotic spindle is disassembled and the cell will segregate via cytokinesis to create two identical cells.

G0: The resting phase where the cell has left the cell cycle and has stopped dividing.