

Melanie Fede

3/30/20

HW#41

Read pgs 244-247 WOQ pg247#1-4, Pg261 #1-8

Page 247 #1-4

1. Relate cell size to cell functions, and explain why cell size is limited.

Cell size relates to cell functions because transportation of nutrients and wastes across the plasma membrane and control of cell contents by the nucleus and gets difficult when the cell increases in size.

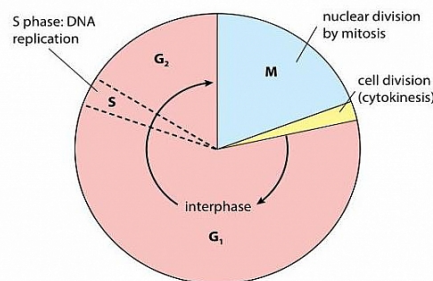
2. Summarize the primary stages of the cell cycle.

The primary stages of the cell cycle are Interphase which is preparation of division of nucleus, mitosis which is division of nuclear material and cytokinesis which is division of cell.

3. Describe what happens to DNA during the S stage of interphase.

During the S stage of interphase, DNA replication happens.

4. Create a diagram of the stages of the cell cycle and describe what happens in each.



Interphase is the stage at which the cell grows, carries out cellular functions, and replicates or makes copies of its DNA in preparation for the next stage. Mitosis is the stage where the nucleus and nuclear material divide. Cytokinesis is when the cell's cytoplasm divides, and creates a new cell. S stage is when DNA is replicated. In G₂ the cell prepares for mitosis and in G₁ the cell grows and performs normal functions.

Page 261 #1-8

1. The period in which the cell is not dividing, interphase
2. The process of nuclear division, mitosis
3. The sequence of events in the life of a eukaryotic cell, The Cell Cycle
4. Which is a reason why cells remain small?
D. All of the above

5. What is the ratio of surface area to volume?
B. 3:1
6. Of the surface area-to-volume ratio, what does the surface area represent in a cell?
B. plasma membrane
7. Which describes the activities of a cell that include cellular growth and cell division?
D. cell cycle
8. As a cell's volume increases, what happens to the proportional amount of surface area?
B. decreases