

Cell Division... Exercise 2
Barbara Slom

NOTE: To make these answers about 1 hour's work (you go through the lab manual from the first page...for the most part, something that may help you answer something in the answer about 5 to 10 min or so (p.10) and answer the questions, I will assign ANY answer that is what is the principle or to give facts. If I make a mistake in grading, you may note to me and I will modify the situation. D'OH!

How do prokaryotes divide? (the best)

Binary Fission -- begins w/ replication of circular DNA strand. Parent splits into 2 daughter cells.

When are chromosomes found in eukaryotic cells?

Nucleus

Where does the division of the _____

Nucleus

When is cytokinesis?

Between divisions

When is cytokinesis?

Between of the cytoplasm

How is cytokinesis different from mitosis?

1 cytokinesis is division of cytoplasm and mitosis is division of nucleus

What are sister products of mitosis?

Division of nucleus and dispersal of replicated DNA to two identical daughter cells.

By the method of mitosis (one offspring will have many) daughter cells?

2 identical daughter cells

Are the daughter cells genetically different or genetically identical?

Genetically identical

If a diploid organism undergoes mitosis, are the two resulting daughter cells haploid or diploid?

Diploid

What does haploid or diploid mean anyway?

Diploid = 46 chromosomes, 2 sets of chromosomes, Haploid = 23 chromosomes, 1 set of chromosomes

What is the difference between somatic and germ cells?

Somatic are all cells that are not sex cells and sex cells only are involved in reproduction

Somatic human cells have 2 copies of

each chromosome called homologous

pairs

Cell Cycle (General)

What are the four main phases of mitosis?

Prophase, Metaphase, Anaphase, Telophase

What are the events that happen in G1 phase?

1 cell grows to almost double, organelles and replicate double to nucleus

What are the events that happen in S phase?

DNA synthesis, DNA replication, DNA is still in chromatin form

What are the events that happen in G2 phase?

Spindle fibers begin to assemble, organelles begin dividing

What are the events that happen in M phase?

Division of nucleus, prophase, metaphase, anaphase, telophase

G1, S and G2 are continuously called inter