The Cell Cycle and Mitosis EOC Review2

1. Fill in the chart below:

|  |  |
| --- | --- |
| Cellular Regulating Factor | How it works |
| SA:V ratio |  |
| Enzymes |  |
| Genes |  |
| Contact Inhibition |  |
| Cyclin |  |

1. What happens to a cell when the controls on the cell size and cell cycle fail? What disease does this cause?
2. Draw and label the following: Chromatin, Chromosome, centromere, chromatid. At which stage in the cell cycle would you see chromatin? When would you see chromosomes? How do the chromosomes differ in Prophase and Telophase?
3. Fill in the chart below, then highlight the stage of the cell cycle that’s the longest:

|  |  |  |
| --- | --- | --- |
| Step in the cell cycle | Purpose | Summary of events |
| Interphase (G1, S, G2) |  |  |
| Mitosis (Prophase, Metaphase, Anaphase, Telophase) |  |  |
| Cytokinesis |  |  |

1. Draw the steps of mitosis below. Label the chromosome number on each diagram (Hint: n=Haploid, and 2n=diploid)