**Topic (\_\_/2 points) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Notes**

| **Connections/Questions**  **(\_\_/5 points)** | **Terms/Description/Tables/Graphs**  **(\_\_/10 points)** |
| --- | --- |
|  | * Chromosome –   dna to chromosome   * What is the relationship between a cell, the nucleus, a chromosome, and DNA? * Humans have \_\_\_\_\_\_ chromosomes or \_\_\_\_\_\_ pairs, 50% come from \_\_\_\_ and 50% come from \_\_\_\_. * DNA   + Structure     - Determined by     - Shape –     - Macromolecule –     - Subunit –       * Consists of     * Complimentary base pairing:      * **Cell Division**   + The cell cycle consists of   + What is the difference between mitosis and cell division?   + Mitosis  |  |  |  | | --- | --- | --- | | **Phase** | **Description** | **# of Chromosomes** | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |  |  |  |  * + - Purpose of mitosis * Asexual Reproduction   + Description   + Types   + Describe the process of cloning * What is the relationship between mitosis and cancer? * Meiosis   + Why can’t mitosis be used for sexual reproduction?   + Process:  |  |  |  |  | | --- | --- | --- | --- | | **Phase** | **Description** | **# of Chromosomes** | **# of Cells** | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  |  * + - Purpose of meiosis     - How does genetic variation arise in meiosis?     - Comparison of mitosis and meiosis  |  |  |  | | --- | --- | --- | |  | **Mitosis** | **Meiosis** | | Purpose |  |  | | Chromosome number |  |  | | # of Cells |  |  | | Genetic variation |  |  |  * Fertilization   + Purpose   + Process |

**Synthesis**

| **Summary & Reflection**  **(\_\_/5 points)** |
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