

Name \_\_\_\_\_ Per \_\_\_\_\_ Date \_\_\_\_\_

### Review of Mitosis and Meiosis—25 points

1. Mitosis and meiosis are both forms of \_\_\_\_\_ division. Mitosis is the division of \_\_\_\_\_ (use formal name) and meiosis is the division of \_\_\_\_\_ (use formal name).
2. In males, meiosis is called \_\_\_\_\_ which creates \_\_\_\_\_. In females, meiosis is called \_\_\_\_\_ which creates \_\_\_\_\_.
3. When mitotic cells (cells dividing by mitosis) divide in humans there are \_\_\_\_\_ chromosomes and \_\_\_\_\_ cell(s) to start. When meiotic cells (cells dividing by meiosis) divide in humans there are \_\_\_\_\_ chromosomes to start and \_\_\_\_\_ cell(s) to start.
4. At the end of mitosis there are \_\_\_\_\_ chromosomes and \_\_\_\_\_ cells. At the end of meiosis there are \_\_\_\_\_ chromosomes and \_\_\_\_\_ cells.
5. In mitosis the number of chromosomes at the beginning and end of the process is known as the \_\_\_\_\_ number or  $2n$ . In meiosis the number of chromosomes at the beginning is the same as that of mitosis but at the end of the process the chromosome number is known as the \_\_\_\_\_ number or  $n$ .
6. How many times does the chromosomal information replicate in each of these processes? \_\_\_\_\_ When does DNA replication occur? \_\_\_\_\_ There are two meiotic division...meiosis I and meiosis II, why don't the chromosomes replicate before each division? \_\_\_\_\_ What is another name for meiosis? \_\_\_\_\_
7. What are homologous chromosomes? \_\_\_\_\_
8. What is crossing over? (not the tv show) \_\_\_\_\_ Where/when does it occur? \_\_\_\_\_ Explain it's importance. \_\_\_\_\_
9. What does DNA stand for? \_\_\_\_\_ What does DNA contain? \_\_\_\_\_
10. What is the importance of mitosis? \_\_\_\_\_ What is the importance of meiosis? \_\_\_\_\_

11. On the back—list and draw the parts to the Cell Cycle
12. On the back—list and define the stages of PMAT