MITOSIS PRACTICE TEST PART 2 ANSWERS

1. **Body Cells reproduce by Mitosis and contain the complete set of chromosomes (46). Sex Cells reproduce by Meiosis and contain half the set of chromosomes (23).**
2. **2 examples of a body cell could include some of the following: skin cells, hair follicles, the lining of the digestive tract, and a newly fertilized egg or a zygote.**
3. **2 examples of a sex cell: sperm and egg cells.**
4. **Each stage of Mitosis in detail:**

STAGE 1 – Interphase - In Interphase, the cell prepares to divide by growth and replication of DNA and organelles.

STAGE 2 – Prophase – In Prophase, DNA condenses, the nucleus disappears and spindles form

STAGE 3 – Metaphase – In Metaphase, the chromosomes line up in the middle of the cell.

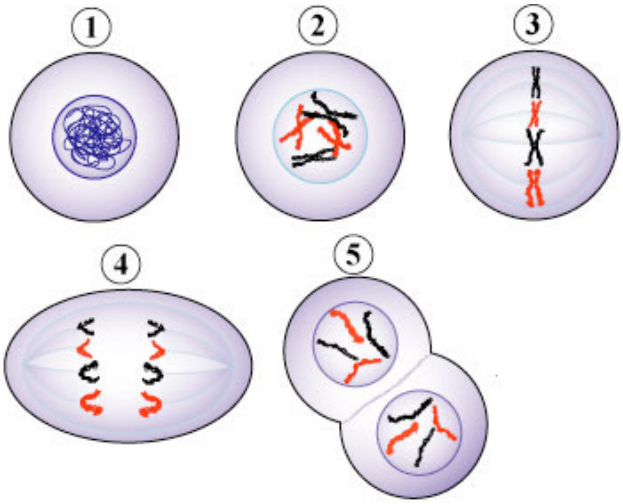
STAGE 4 – Anaphase – In Anaphase, the sister chromatids separate and move to opposite ends of the cell.

STAGE 5 – Telophase – In Telophase, the chromosomes decondense and the nucleus reappears in both cells. (Cytokinesis) In animal cells, the cytoplasm pinches in and in plant cells a new cell wall is built.

5. **There is no relationship at all.**

6. **Phases order: Interphase, Prophase, Metaphase, Anaphase, Telophase (PMAT)**

Phases:



7. **Cytokinesis**
8. **Centromere**
9. **Chromatin**
10. **Chromosome**
11. **Sister Chromatids**
12. **Meiosis**
13. **Embryo**
14. **Zygote**
15. **Diploid**
16. **Telophase**
17. **In animal cells, the cytoplasm pinches in and in plant cells a new cell wall is built.**
18. **Meiosis begins in males during puberty. In females, meiosis begins before birth. The process stops and begins again when the female reaches sexual maturity.**

19. **Diploid Cells are body cells (2x) contain pairs of chromosomes. Haploid cells are sex cells (x) contain one chromosome of each pair.**
20. **If Cytokinesis occurred without Mitosis, then each cell would only have half of the parent cell's genetic material.**
21. **Should look something like this:**