

MITOSIS PRACTICE TEST PART 1 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. Prophase, Metaphase, Anaphase, Telophase (PMAT)

7. Metaphase

8. Telophase

9. Interphase

10. Anaphase

11. Prophase

12. Cytokinesis

13. Centromere

14. Chromatin

15. Chromosome

16. Sister Chromatids

17. Meiosis

18. Embryo

19. Zygote

20. Diploid

21. Telophase

22. In animal cells, the cytoplasm pinches in and in plant cells a new cell wall is built.

23. Meiosis begins in males during puberty. In females, meiosis begins before birth. The process stops and begins again when the female reaches sexual maturity.

24. Diploid Cells are body cells (2x) contain pairs of chromosomes. Haploid cells are sex cells (x) contain one chromosome of each pair.

25. If Cytokinesis occurred without Mitosis, then each cell would only have half of the parent cell's genetic material.

26. Should look something like this:

