**Reproduction, Mitosis, and Meiosis Review Sheet**

**Directions: Using your notes on reproduction, mitosis, and meiosis, determine whether each statement is true or false.**

1. \_\_\_\_\_The basic types of reproduction are asexual and sexual reproduction.

2. \_\_\_\_\_Sexual reproduction only involves one parent.

3. \_\_\_\_\_Asexual reproduction always involves two parents.

4. \_\_\_\_\_Meiosis starts with one cell and ends with 4 haploid cells.

5. \_\_\_\_\_“Crossing-over” can occur in prophase I but not prophase II of meiosis.

6. \_\_\_\_\_Mitosis happens in sex cells, while meiosis happens in somatic cells (body cells, no sex cells).

7. \_\_\_\_\_Meiosis I and mitosis are extremely similar to one another.

8. \_\_\_\_\_In binary fission, parent and offspring are identical.

9. \_\_\_\_\_In sexual reproduction, parents and offspring are never identical.

10. \_\_\_\_\_Meiosis is involved in the production of gametes.

**Directions: Fill in the blank with the appropriate term using your notes.**

11. Crossing over is the exchange of \_\_\_\_\_\_\_\_\_\_ material between homologous chromosomes.

12. Binary fission is an example of \_\_\_\_\_\_\_\_\_\_ reproduction.

13. Meiosis is a type of cell division in which the number of chromosomes is reduced by \_\_\_\_\_\_\_\_\_\_.

14. The duplication of DNA occurs in the \_\_\_\_\_\_\_\_\_\_ phase of the cell cycle.

15. Meiosis starts with one cell, and ends with \_\_\_\_\_\_\_\_\_\_ cells.

16. Sexual reproduction involves \_\_\_\_\_\_\_\_\_\_ parent(s).

17. Crossing over happens during \_\_\_\_\_\_\_\_\_\_ of meiosis I.

18. The splitting of a cell into two new cells occurs during \_\_\_\_\_\_\_\_\_\_.

19. The picture below is showing \_\_\_\_\_\_\_\_\_\_ in meiosis.

20. Sister chromatids are pulled apart during \_\_\_\_\_\_\_\_\_\_ of meiosis II.

**Directions: Answer each question using your notes on sexual/asexual reproduction and meiosis.**

21. The diploid number of chromosomes for a gorilla is 94. How many chromosomes are in a gamete of a gorilla?

22. What are two events that lead to genetic variation in meiosis?

23. Why is sexual reproduction advantageous over asexual reproduction?

24. Explain why homologous chromosomes are similar but not identical.

25. How is the outcome of mitosis different from meiosis?

**Directions: Determine whether each statement is happens in mitosis, meiosis, or both. YOU MUST WRITE OUT THE STATEMENTS FOR FULL CREDIT!!!!!**

26. Produces identical cells

27. Homologous chromosomes pair up

28. Produces genetically different cells

29. Produces 4 haploid cells

30. Produces somatic cells (body cells)

31. Has two phases of division

32. Nuclear membrane breaks down

33. Chromosome number gets reduced by half

34. Sister chromatids are pulled apart

35. Interphase is the period before cell division occurs

36. Chromosome number stays the same after division

37. Separation of existing cells into new cells

38. Cytokinesis splits the cytoplasm into separate cells

39. Produces 2 diploid cells

40. Gap 1, Synthesis, Gap 2 are the longest parts of the cell cycle