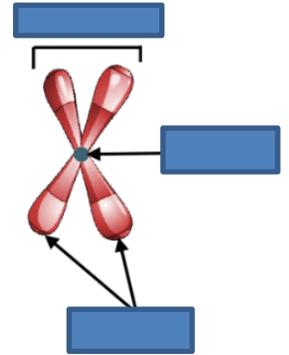


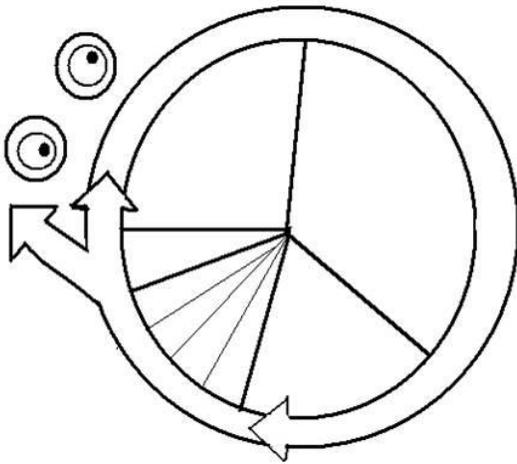
# Study Guide Unit 2 Part 2: Cell Reproduction

## Chromosome Structure

1. \_\_\_\_\_ occurs in prokaryotic cells and \_\_\_\_\_ occurs in eukaryotic multi-cellular organisms as a means of cellular reproduction.
2. What is a somatic cell?
3. What is a gamete?
4. A bone cell is an example of a (haploid/diploid) cell.
5. A sperm cell is an example of a (haploid/diploid) cell.
6. ALL somatic cells are (haploid/diploid).
7. If  $2n = 92$ , how many autosomes would a sperm cell contain?
8. What is another name for a fertilized egg?
9. Label the chromosome to the above (centromere, sister chromatids, chromosome)



## Cell Cycle



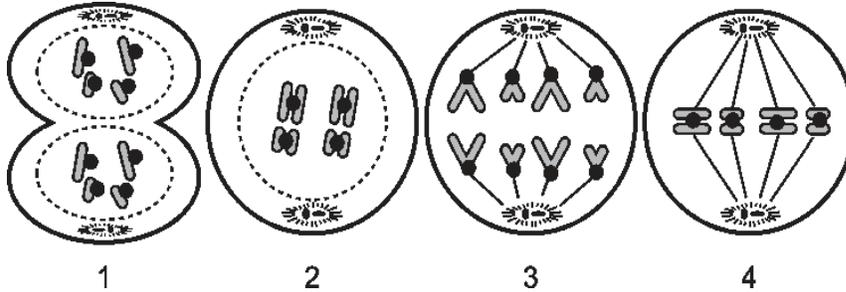
10. Label the diagram to the left.
11. When does the cell grow normally?
12. \_\_\_\_\_ is when the nuclear membrane breaks down and you can see the \_\_\_\_\_ for the first time.
13. \_\_\_\_\_ is the phase when DNA duplicates.
14. \_\_\_\_\_ are made from microtubules and are secreted from centrioles during mitosis.
15. How many chromosomes do each cell have at the end of mitosis?
16. During cytokinesis, animal cells form a \_\_\_\_\_ and plant cells form a \_\_\_\_\_.
17. What happens if cytokinesis does not occur?
18. The end product of mitosis is 2 \_\_\_\_\_ daughter cells.
19. List 3 main phases of cell cycle.

20. Why do cells divide?

21. Describe cell differentiation? Give me an example!

22. Do all cells divide at the same rate? GIVE ME AN EXAMPLE!!

23. Put the following diagram in the correct order of mitosis.



### Cell Regulation

24. If cells are grown in a petri dish, they grow and grow until they \_\_\_\_\_ another cell.

25. Can cancer occur in a prokaryotic cell?

26. A \_\_\_\_\_ tumor does not leave the original site whereas a \_\_\_\_\_ tumor has left the original site and entered the blood stream.

27. A \_\_\_\_\_ in the cell cycle is a critical control point that helps to ensure that the cell is ready for division.

28. Metastasis occurs if a tumor is \_\_\_\_\_. It simply means that it has left the original site.

**Is there anything you have a question about or need further explanation for?**