**Unit 2 (Mitosis/Meiosis I & II) Review Questions**

1. Why does a cell divide?
2. Know what: happens in Interphase: G1, S, G2
3. During what part of Interphase does chromatin (DNA) replicate?
4. Know what: Chromatin/Chromosome/Chromatids
5. What does a chromosome pair consist of?
6. Be able to diagram Chromatin and a chromosome pair and label.
7. Know: DNA’s ultimate purpose is to create proteins.
8. Explain G(zero).
9. Know: Mitosis – What each phase looks like.
10. Explain what cancer is.
11. Understand this graph
12. Know: how cells differentiate. [Has to do with DNA]
13. What happens in each phase of Meiosis I?
14. What’s the difference between Homologous Chromosomes and sister chromatids?
15. When does Crossing Over occur and between what objects?
16. Know: that Crossing Over leads to ***Genetic Diversity***.
17. Know: Metaphase I homologous chromosomes (tetrad) pull apart and not chromatids.
18. Know: The difference between Metaphase I and Metaphase II
19. What Happens in each phase of Meiosis II (hint: it’s the same as mitosis)?
20. Know: that haploid (n) has half the amount of chromosomes as diploid.
21. Know: Diploid is also known as 2n.
22. Know: Meiosis produces haploid gametes!
23. Know: The differences between mitosis and meiosis
24. Know: Mitosis creates genetically identical daughter cells that do the same function as the original parent (Somatic) cell.



Know: Meiosis creates genetically non-identical daughter cells and have half the number of chromosomes than the original parent (Gamete) cell.

