1. There are different stages between mitosis and meiosis. The main difference is the alignment of chromosomes in metaphase and metaphase 1. What law does this demonstrate?

**DO NOW: 27 Week Test Prep**

* 1. Law of inheritance
  2. Law of segregation
  3. Law of dominance
  4. Law of gamete formation

1. An organism has a genotype of Ttww. What is one possible genotype of a gamete produced by that organism?
   1. TW
   2. Tw
   3. tW
   4. B and C
   5. All of the above
2. A human has an unidentified sickness. You are asked to diagnose that patient. The patient test results come back and you indicate the patient that he has a disease of uncontrolled cellular growth. You will inform the patient they that have…
   1. A scar
   2. A tumor
   3. A meiotic disorder
   4. A failing organ
3. Stem cells are important because they \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ different types of cells
   1. Mutate into
   2. Kill
   3. Differentiate into
   4. Absorb
4. After receiving a cut, your body creates more cells to close off the cut and ensure the body heals correctly. Once the cells are touching, they stop their division. What process is going on?
   1. Density dependent inhibition
   2. Density independent inhibition
   3. Epithelial inhibition
5. What statement about mitosis and meiosis is true?
   1. Mitosis happens in germ cells and meiosis happens in somatic cells
   2. Mitosis happens at a rate that is much faster than meiosis.
   3. An organism’s development alternates between haploid and diploid stages.
   4. The formation of a fetus can only happen through the combination of haploid cells.
6. After a cell undergoes crossing over…
   1. Combinations from both chromosome pairs are mixed
   2. Interphase follows
   3. Formation of two identical daughter cells
   4. Meiosis is finished
7. An organism that has 28 total chromosomes produces germ cells. The germ cells contain \_\_\_\_\_\_\_\_\_\_\_ chromosomes.
   1. 14
   2. 28
   3. 42
   4. 58