

Name: \_\_\_\_\_

## Meiosis Webquest

### Meiosis

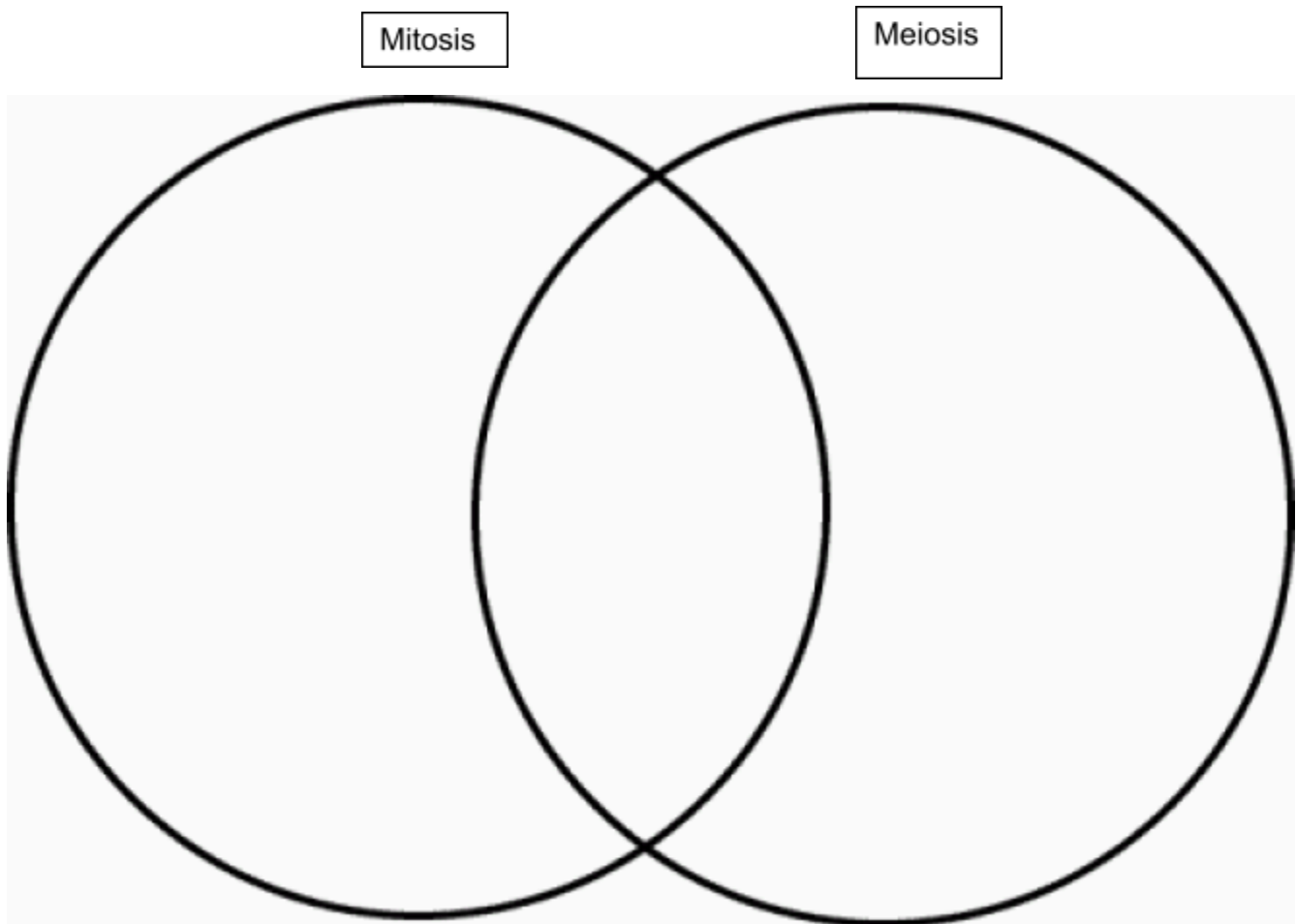
Use the following website to answer the questions below.

<http://www.sumanasinc.com/webcontent/animations/content/meiosis.html> (The video doesn't say answers in order or necessarily word for word. Also, you may need to look at the pictures and write an answer in your own words. Use your notes to help you as well.)

1. What is the purpose of meiosis?
2. What is the first thing the chromosomes do?
2. How many cell divisions occur in meiosis? \_\_\_\_\_
3. Pairing of mother and father chromosomes (homologs) is called? \_\_\_\_\_
4. Crossing over occurs in Prophase I. What effect does that have on the cells?
5. Describe how the chromosomes are lined up in Metaphase 1
6. Describe independent assortment
7. Describe why chromosomes may not be identical in anaphase I
8. What happens to chromosomes in telophase I?
9. What happens to chromatin in prophase II?
10. What happens to the chromosomes in metaphase II?
11. What happens to the chromosomes in anaphase II?
12. What happens to the chromosomes in telophase II?
13. When the cells divide again, what happens to the number of chromosomes?

**Comparing and Contrasting Mitosis and Meiosis:** Fill in the Venn diagram with the given characteristics. You can add other characteristics, too! You may need to use your notes to remember Mitosis.

- \* Results in cells with the same Chromosome number
- \* Results in cells with half the number of Chromosomes
- \* One part to cell division
- \* Two parts to cell division (I and II)
- \* 4 Sex cells
- \* 2 Body cells
- \* Same names in phases
- \* Crossing over takes place
- \* Ways cells reproduce



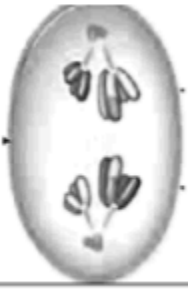
**Mitosis vs. Meiosis** <http://www.pbs.org/wgbh/nova/baby/> --> Click "How Cells Divide" --> After reading the text click on "Mitosis vs. Meiosis (non-flash version)" and read through the stages on each page to help you complete the chart below.

After reading & checking your notes, fill out the chart below, by placing a check in the box or boxes to indicate which the event occurs in.

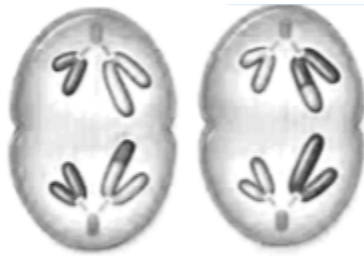
	Mitosis only	Meiosis only	Both
Two cell divisions			
Creates identical daughter cells			
Chromosomes pair up			
Spindle fibers form			
One cell division			
Cytokinesis			
Four daughter cells			

**Phases of Meiosis:** Write the name of the phase in the empty boxes #1-10 and then again write the name in the empty boxes below each picture.

Name of Phase	Description
1.	Homologous chromosomes pair up and form tetrad
2.	Spindle fibers move homologous chromosomes to opposite sides
3.	Nuclear membrane reforms, cytoplasm divides, 4 daughter cells formed
4.	Chromosomes line up along equator, not in homologous pairs
5.	Crossing-over occurs
6.	Chromatids separate
7.	Homologs line up along equator
8.	Cytoplasm divides, 2 daughter cells are formed



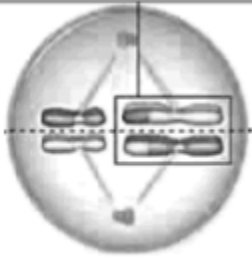
1.



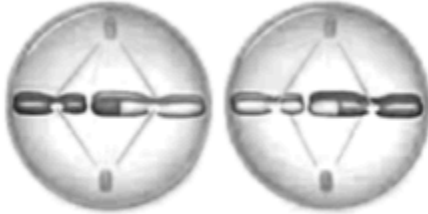
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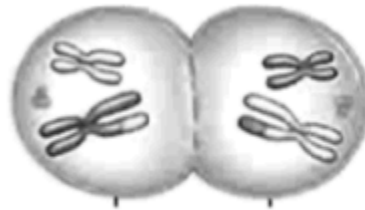
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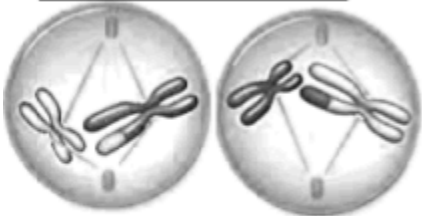
4.



5.



6.



7.



8.