Name: _____

Comparing Mitosis & Meiosis

Determine whether the following characteristics apply to mitosis, meiosis or both by putting a check (√) in the appropriate column(s).

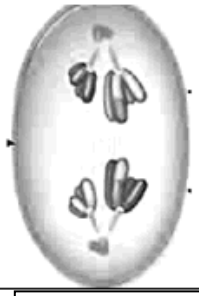
Characteristic	Mitosis	Meiosis	Both
1. homologous pairs of chromosomes line up together in metaphase		X	
2. two divisions		X	
3. four genetically different daughter cells produced		X	
4. associated with growth & asexual reproduction	X		
5. associated with sexual reproduction.		X	
6. one division	X		
7. two genetically identical daughter cells are produced	X		
8. involves duplicating or copying the chromosomes			X
9. the chromosome number in the daughter cells is identical to the mother cell (2n to 2n)	X		
10. the chromosome # in the daughter cells is half that of the mother cell (2n to n)		X	
11. produces gametes or sex cells		X	
12. crossing over occurs in prophase		X	

http://sepuplhs.org/high/sgi/teachers/genetics_act3_sim.html

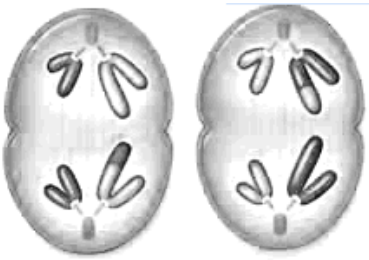
Name: _____

Phases of Meiosis

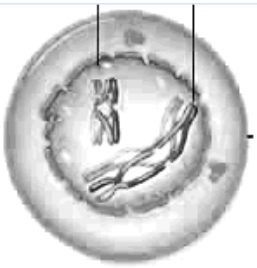
Name of Phase	Description
1. PROPHASE I	Homologous chromosomes pair up and form tetrad
2.ANAPHASE I	Spindle fibers move homologous chromosomes to opposite sides
3.TELOPHASE II	Nuclear membrane reforms, cytoplasm divides, 4 daughter cells formed
4.METAPHASE II	Chromosomes line up along equator, not in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



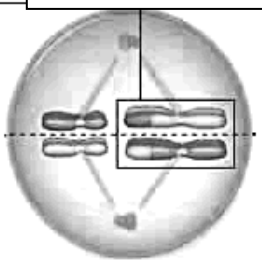
1. ANAPHASE I



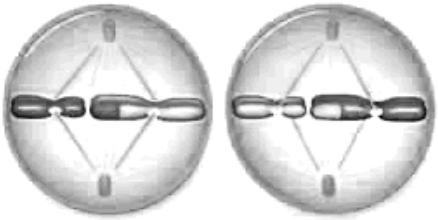
2. ANAPHASE II



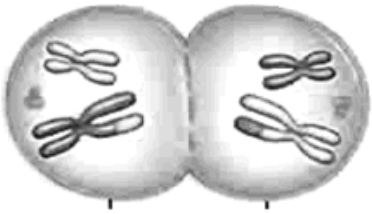
3. PROPHASE I



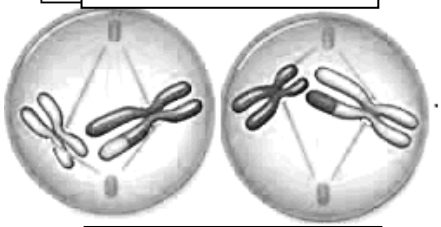
4. METAPHASE I



5. METAPHASE II



6. TELOPHASE I



7. PROPHASE II

8. TELOPHASE II