

Meiosis

Name: _____

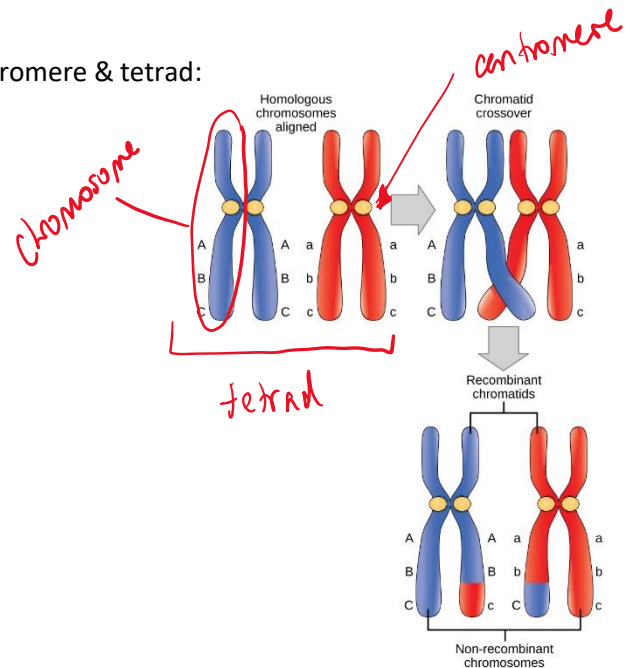
1. **Definitions:** Please write definitions for the following words – use your notes and write those definitions in your own words

Term	Definition
Gamete	Contains one set of genes on one set of chromosomes, egg and sperm
Homologous	2 sets of chromosomes (one from the male parent, one from the female parent)
Chromosome	Contains genes
Diploid	2N – contains both sets of genes (from males and female parent)
Haploid	N – contains half of the genes (gametes)
Chromatid	Half of a chromosome
Tetrad	A set of homologous chromosomes

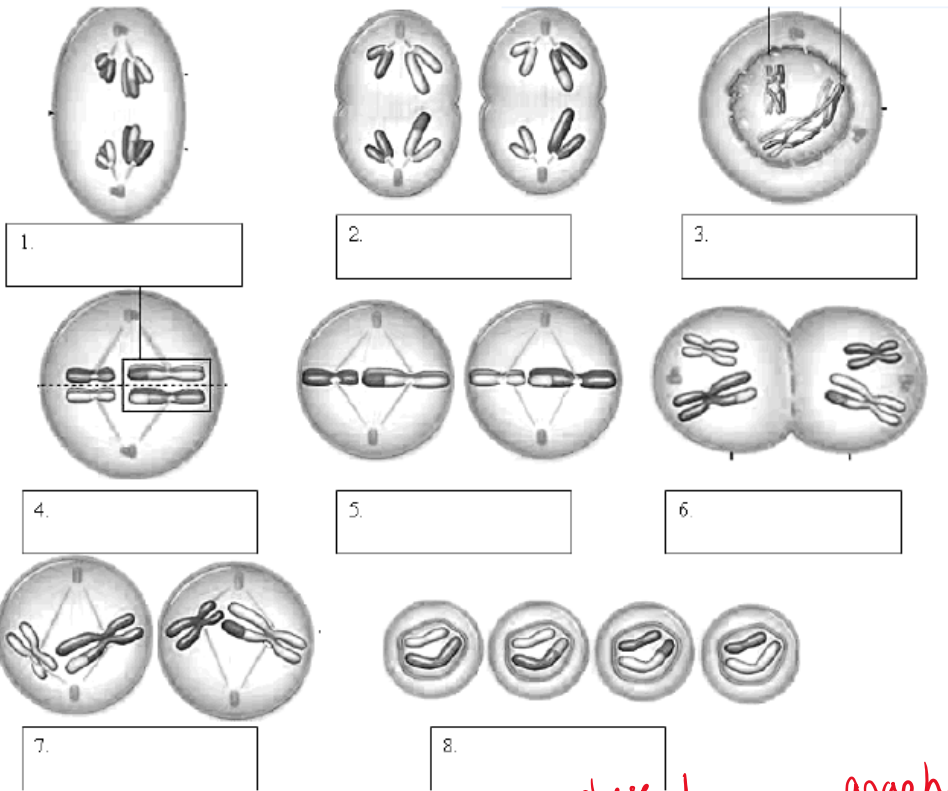
2. **Meiosis phases:** document what happens in each phase in the table below

Meiosis I		Meiosis II	
Interphase	DNA replication		
Prophase I	Chromosomes pair up (form tetrads) Centrioles and spindle fibers form	Prophase II	Half of the number of chromosomes
Metaphase I	The pairs line up at the centre of the cell Spindle fibers attach at centromeres	Metaphase II	Individual chromosomes line up at the equator Spindle fibers attach at centromeres
Anaphase I	Homologous chromosomes pulled apart	Anaphase II	Sister chromatids – move to poles
Telophase I	Nuclear membrane reforms	Telophase II	Nuclear membrane reforms
Cytokinesis	2 separate cells Half of the homologous chromosomes Haploid	Cytokinesis	Cell membranes separate into 4 cells, all haploid

3. Label the following diagram with sister chromatids, centromere & tetrad:



4. Label the stages of meiosis on these 2 diagrams:



1.

2.

3.

4.

5.

6.

7.

8.

1	anaphase I
2	telophase II
3	prophase I
4	metaphase II
5	metaphase I
6	cytokinesis I
7	prophase II
8	cytokinesis II

prophase I

anaphase I

anaphase II

prophase II

metaphase II

metaphase I

anaphase I

anaphase II

cytokinesis II

