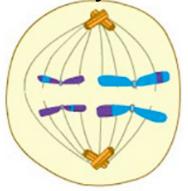
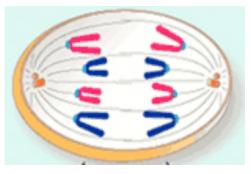
Name	Mitosis	Meiosis
Which cells undergo this process?	Body/somatic	Sperm/egg
Number of daughter cells produced.	2	4
Number of divisions.	1	2
Chromosomes number of parent cell.	46	46
Chromosome number of daughter cells.	46	23
Number of DNA replications.	1	1
Number of chromosomes in daughters cells in comparison to the number of the mother cell	same	1/2
Do tetrads form?	no	yes
Does crossing over occur?	no	yes
DNA is copied during interphase.	yes	yes
Homologous chromosome pairs separate during process.	No	yes
Process produces cells that are different than original cell	No	yes
Haploid or diploid cells produced?	Diploid	haploid
Amount of variation in daughter cells?	None	Yes / some
Why it occurs?	Replace / new cells	Prod. sex cells with half DNA

## **Comparing Mitosis and Meiosis**

Identify the stage of mitosis or meiosis...

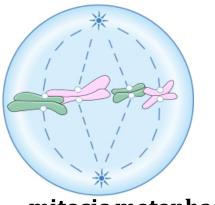


anaphase II

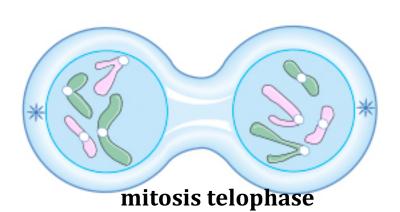


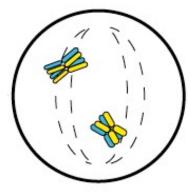
mitosis anaphase interphase



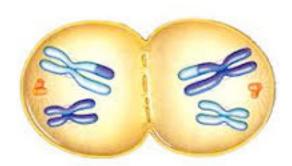


mitosis metaphase

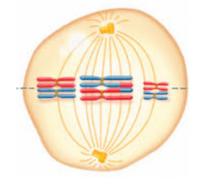




prophase I



telophase I



metaphase I

Name	

1) Draw homologous chromosomes in metaphase of mitosis that have duplicated. Use colour or shading to distinguish different chromosomes or features.

2) Draw homologous chromosomes in metaphase I of meiosis that have duplicated and crossed over. Use colour or shading to distinguish different chromosomes or features.