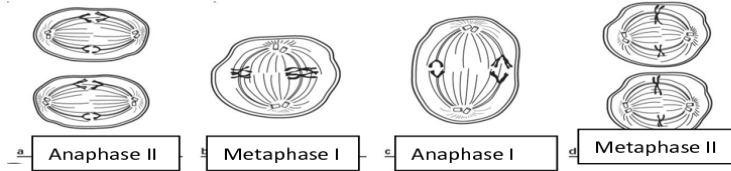
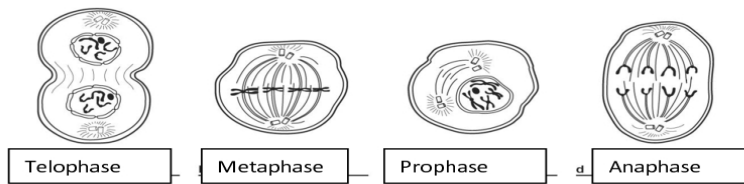


## Review for Mitosis, Meiosis, and Karyotypes Test

1. What stages of meiosis are pictured?



2. What stages of mitosis are pictured?



3. Complete the chart for the two karyotypes.

# of Chromosomes	46	47
Male or Female	Male	Female
Chromosome affected?	None	21
Notation	46XY	47XX+21

4. What are two mechanisms that result in non-identical daughter cells in meiosis? Explain how they produce new genetic combinations in the offspring.

**Crossing over** – pieces of homologous chromosomes switch places during prophase I, creating new combinations of genes on the chromosomes.

**Independent Assortment** – Maternal and paternal chromosomes randomly align, creating different combinations of maternal and paternal chromosomes in the resulting daughter cells