MEIOSIS I - Prophase I
• Each chromosome pairs with its corresponding chromosome to form a ______.
• There are ____ chromatids in a tetrad.
• When homologous chromosomes form tetrads in meiosis I, they exchange portions of their chromatids in a process called ______ ______.

Crossing-over produces new of ______.

MEIOSIS I - Metaphase I
• Spindle fibers attach to the chromosomes.
• Chromosomes move to ______ of cell

MEIOSIS I - Anaphase I
• The fibers pull the homologous chromosomes toward ______ ends of the cell.

Cells undergo a round of ______, forming duplicate chromosomes.
Meiosis II

The two cells produced by meiosis I now enter a second meiotic division. Unlike meiosis I, neither cell goes through _______ replication. Each of the cell's chromosomes has ______ chromatids.

- Meiosis I results in ______ haploid (N) daughter cells, each with ______ the number of chromosomes as the original cell.
**MEIOSIS II**

- Anaphase II
- Telophase II and Cytokinesis

- The sister chromatids and move toward ends of the cell.
- Meiosis II results in haploid (N) daughter cells.

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In many female animals, only ______ egg results from meiosis. The other three cells, called ________, are usually not involved in reproduction.

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**11-4 Meiosis → Gamete Formation**

**Gamete Formation**

In male animals, meiosis results in ______ equal-sized gametes called ________.

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**Comparing Mitosis and Meiosis**

**Mitosis results in the production of _____ genetically identical _________ cells.**

**Meiosis produces ______ genetically different ____________ cells.**
Mitosis
• Cells produced by mitosis have the ______ number of ________ and ________ as the original cell.
• Mitosis allows an organism to grow and ________ cells.
• Some organisms reproduce ________ by mitosis.

Meiosis
• Cells produced by meiosis have ________ the number of chromosomes as the parent cell.
• These cells are genetically ________ from the diploid cell and from each other.
• Meiosis is how ________-reproducing organisms produce gametes.