

Go to: http://www.biology.arizona.edu/CELL_BIO/tutorials/meiosis/main.html

Click on Reproduction

- Define asexual reproduction: _____

- Define sexual reproduction: _____

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- Summary of chromosome characteristics
 - Diploid set for humans; $2n =$ _____
 - _____; homologous chromosomes, one from each parent (humans = 22 sets of 2)
 - _____ chromosomes (humans have 1 set of 2)
 - Female-sex chromosomes are homologous (____)
 - Male-sex chromosomes are non-homologous (____)
- Define Karyotype: _____

- Ploidy: Number of sets of chromosomes in a cell
 - _____ (____)-- _____ set chromosomes
 - _____ (____)-- _____ sets chromosomes
 - Most plant and animal adults are diploid (_____)
 - Eggs and sperm are haploid (____)

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Review the steps of Meiosis

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Comparing Meiosis and Mitosis

- Chromosome number- reduction in meiosis
 1. Mitosis- _____ daughter cells
 2. Meiosis- daughter cells _____

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Tutorial Problems

1. A human cell has 46 total or 23 pairs of chromosomes. Following mitosis, the daughter cells would each have a total of _____ chromosomes. After meiosis I, the two daughter cells would have _____ chromosomes, and after meiosis II _____ chromosomes.
2. The process of meiosis produces four cells with nonidentical chromosomes. This diversification occurs during:

3. Which of the following is unique to mitosis and not a part of meiosis?
4. The Thompson seedless grape is triploid, with three copies of each chromosome. Which phase of the cell cycle would you expect triploid cells to be unable to complete.
5. Some organisms are capable of asexual or sexual reproduction. Under favorable conditions, reproduction proceeds asexually. When conditions become more stressful reproduction switches to a sexual mode. Why?
6. The stage of meiosis where cells become haploid.
7. One of the earliest events that distinguishes meiosis occurs in prophase I and involves:
8. Coral in the ocean grows by budding, where the new organism grows out of the old one by mitosis. This form of replication is an example of:
9. _____ most closely resembles events of mitosis except that the cells are _____.
10. During anaphase, a free kinetochore formed by disrupting an attached spindle fiber results in an immediate block to the process. This result shows that:

Go to: <http://www.cellsalive.com/meiosis.htm>

Review the animation