

Meiosis Flashcards PDF

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What is meiosis?

Meiosis is a type of cell division that reduces the chromosome number by half, resulting in the production of four gametes, each with half the number of chromosomes of the original cell.

What are the two main stages of meiosis?

The two main stages of meiosis are meiosis I and meiosis II.

What happens during prophase I of meiosis?

During prophase I, homologous chromosomes pair up and exchange segments in a process called crossing over.

What is the significance of crossing over?

Cross over increases genetic diversity by allowing the exchange of genetic material between homologous chromosomes.

What occurs during metaphase I?

During metaphase I, homologous chromosome pairs align at the cell's equatorial plane.

What is anaphase I?

Anaphase I is the stage where homologous chromosomes are pulled apart to opposite poles of the cell.

What happens during telophase I?

During telophase I, the cell divides into two daughter cells, each with half the number of chromosomes.

What is the outcome of meiosis I?

The outcome of meiosis I is two haploid cells, each containing one set of chromosomes.

What occurs during meiosis II?

Meiosis II resembles mitosis, where the sister chromatids are separated into individual chromosomes.

What is the final result of meiosis?

The final result of meiosis is four genetically diverse haploid gametes.