The Practise Ground

Class 10-12 Biology

Mitosis vs Meiosis

Two ways a cell divides

1

Mitosis

Growth and repair

1 division; 2 identical diploid (2n) daughter cells

2

Meiosis

Makes gametes

2 divisions; 4 different haploid (n) cells

3

P M A T

Stages of mitosis

Prophase, Metaphase, Anaphase, Telophase

4

Crossing over

Prophase I of meiosis

Homologous chromosomes swap segments: variation

2n	n	DNA	Spin	Chr
diploid	**haploid**	**copied once**	**spindle**	**chromosome**
full set	half set	S phase	fibres	DNA

Remember

Mitosis happens in body cells. Meiosis happens only in reproductive cells.

Meiosis keeps the chromosome number constant across generations.

Quick example

A human body cell has 46 chromosomes.

Mitosis gives two cells with 46. Meiosis gives four with 23.

Think you've got it? Test yourself.

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