

Solutions

Each answer shows the steps, then the **result**.

2.1

- Four cells; haploid

2.2

- Homologous pairs of chromosomes

2.3

- Any one: meiosis has two divisions / makes four haploid varied cells vs mitosis' one division making two identical diploid cells

3.1 B

- haploid and varied

3.2

(a)

- 4 chromosomes

(b)

- At fertilization two gametes fuse; if they were diploid the chromosome number would double each generation, so they must be haploid to keep it constant

3.3

- Mitosis: 2 cells, diploid, genetically identical; meiosis: 4 cells, haploid, genetically varied