

Solutions

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

2.1

- meiosis produces **gametes** (sex cells)

2.2

- it is a reduction division because it **halves the chromosome number** (diploid → haploid)

3.1 B

- gametes are **haploid and genetically different**
- A is mitosis; C and D mix the two

3.2

(a)

- any **two** of: meiosis **halves** the number (mitosis keeps it) / meiosis makes **4** cells (mitosis 2) / meiosis makes **different** cells (mitosis identical)

(b)

- it produces **variation** in the offspring
- which helps the species **survive if the environment changes**