

Exercise walk-through

Asexual reproduction ■ 16.1

eXercise

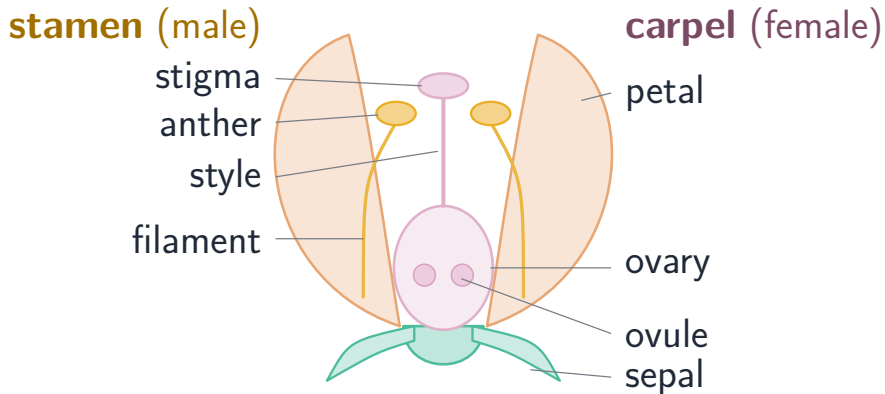
You must be able to

- define asexual reproduction (one parent, identical offspring)
- give the advantages and disadvantages
- compare it with sexual reproduction

Method — Asexual reproduction

- **advantage:** fast; only one parent needed; good in stable conditions.
- **disadvantage:** no variation — a change (e.g. a new disease) could kill them all.

Method — Asexual reproduction



A flower — a reproductive structure

Practice 2.1 ■ 1 mark

State how many parents are needed in asexual reproduction.

Solution 2.1

Method: Asexual reproduction

Worked steps

one **B1**.

Practice 2.2 ■ 1 mark

State how the offspring of asexual reproduction compare with the parent.

Solution 2.2

Method: Asexual reproduction

Worked steps

they are genetically identical to the parent (clones) **B1**.

Exam-style 3.1 ■ 1 mark

A disadvantage of asexual reproduction is that the offspring:

- A** are all different
- B** are genetically identical, so a change could kill them all
- C** need two parents
- D** grow slowly

Solution 3.1

Method: Asexual reproduction

- A are all different
- B are genetically identical, so a change could kill them all 
- C need two parents
- D grow slowly

Worked steps

B. Identical offspring could all be killed by a single change.

Exam-style 3.2 ■ 1 mark

A farmer grows a field of genetically identical crop plants.

- (a) State one advantage of this.
- (b) Explain one risk of growing identical plants.

Solution 3.2

Method: Asexual reproduction

Worked steps

- (a) the plants are uniform / give an even harvest **B1**.
- (b) the plants are genetically identical **M1**, so one disease could wipe out the whole crop **A1**.