

Solutions

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

2.1

- a recessive allele is shown in the phenotype **only when no dominant allele is present**

2.2

- heterozygous for B/b is **Bb**

3.1 B

- $Bb \times Bb$ gives a **3 : 1** phenotype ratio
- A is a test cross; C is genotypes; D is $BB \times \text{anything}$

3.2

(a)

- parents $Bb \times bb$; gametes B, b and b
- offspring **Bb, Bb, bb, bb**

(b)

- ratio **1 : 1** (black : white)