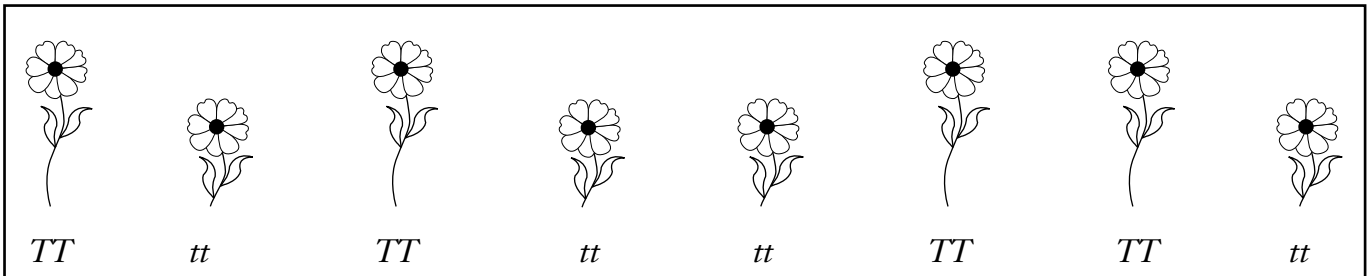


**CHAPTER 18 THE THEORY OF EVOLUTION**

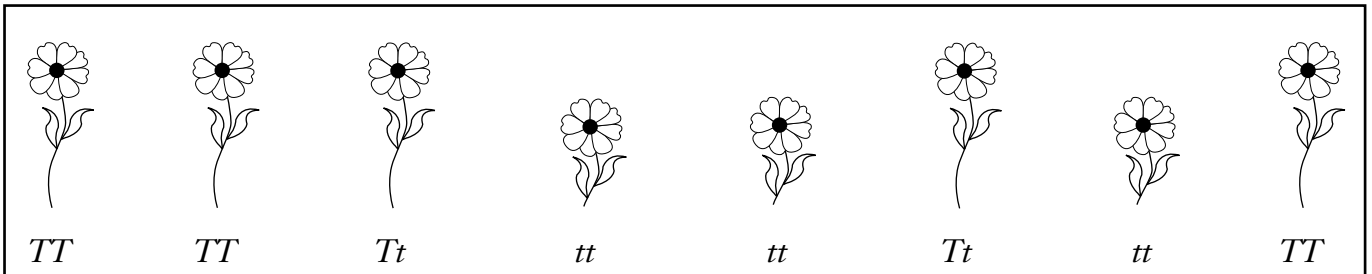
Study the diagrams. Then answer the questions.

**Flower Population**

**First Generation**



**Second Generation**



3. Two genotypes—gene types—are present in the first generation population. One is  $TT$ . What is the other? \_\_\_\_\_

**Allelic frequency** tells how often an allele occurs in a population. In the first generation, 8 out of 16 alleles are the  $T$  allele. The  $T$  allele is present one half of the time, so the allelic frequency for the  $T$  allele is 50%. The allelic frequency for the  $t$  allele is also 50%.

4. What is the allelic frequency for each allele in the second generation?
- a.  $T$  \_\_\_\_\_
- b.  $t$  \_\_\_\_\_