

RESULTS

First
filial
gener-
ation
offspring
(F₁)

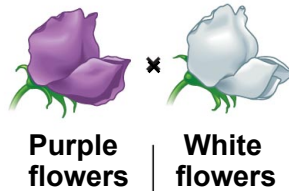


Copyright © 2008 Pearson Education, Inc., publishing as Pearson Benjamin Cummings.

3

EXPERIMENT

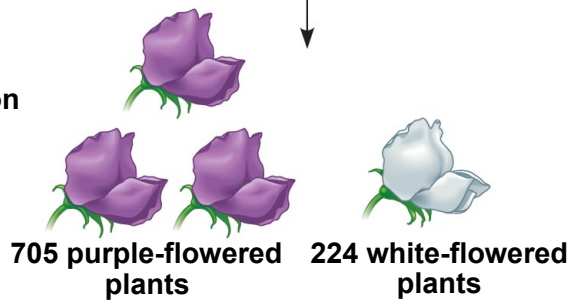
P Generation
(true-breeding
parents)



F₁ Generation
(hybrids)










F₂ Generation



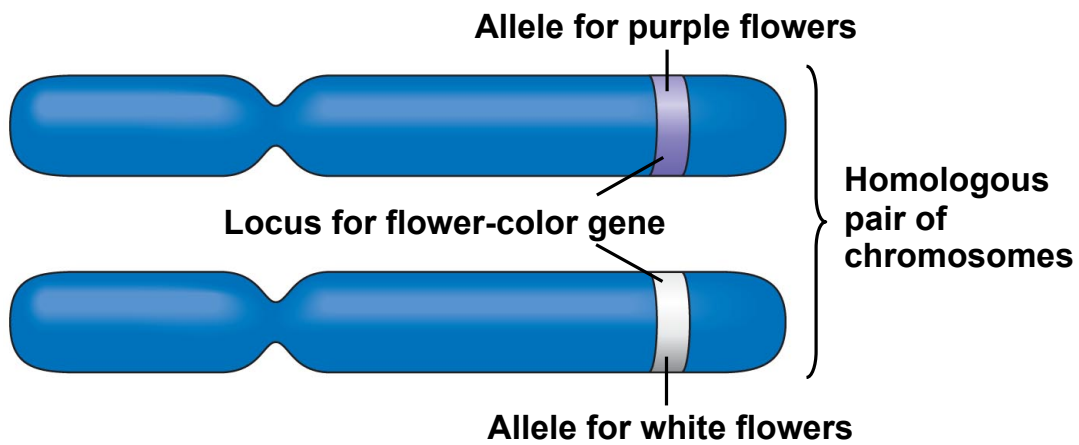
Copyright © 2008 Pearson Education, Inc., publishing as Pearson Benjamin Cummings.

4

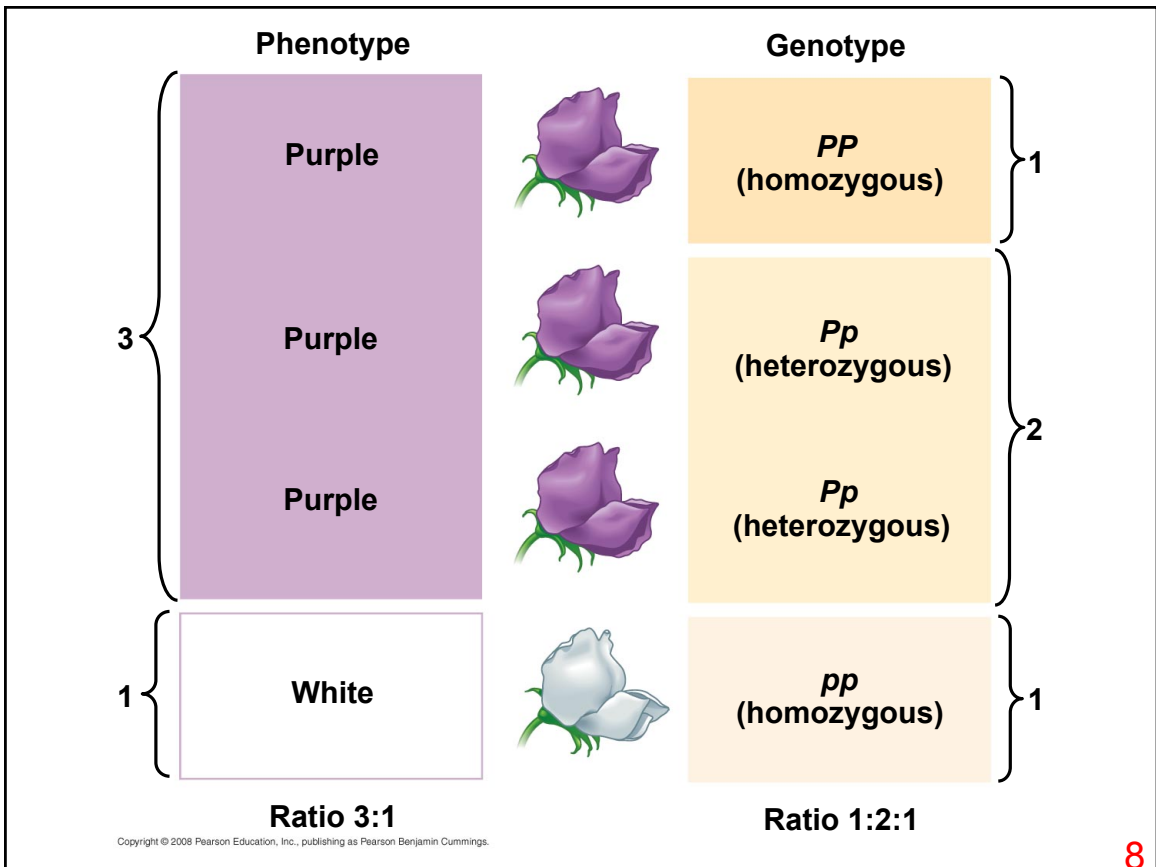
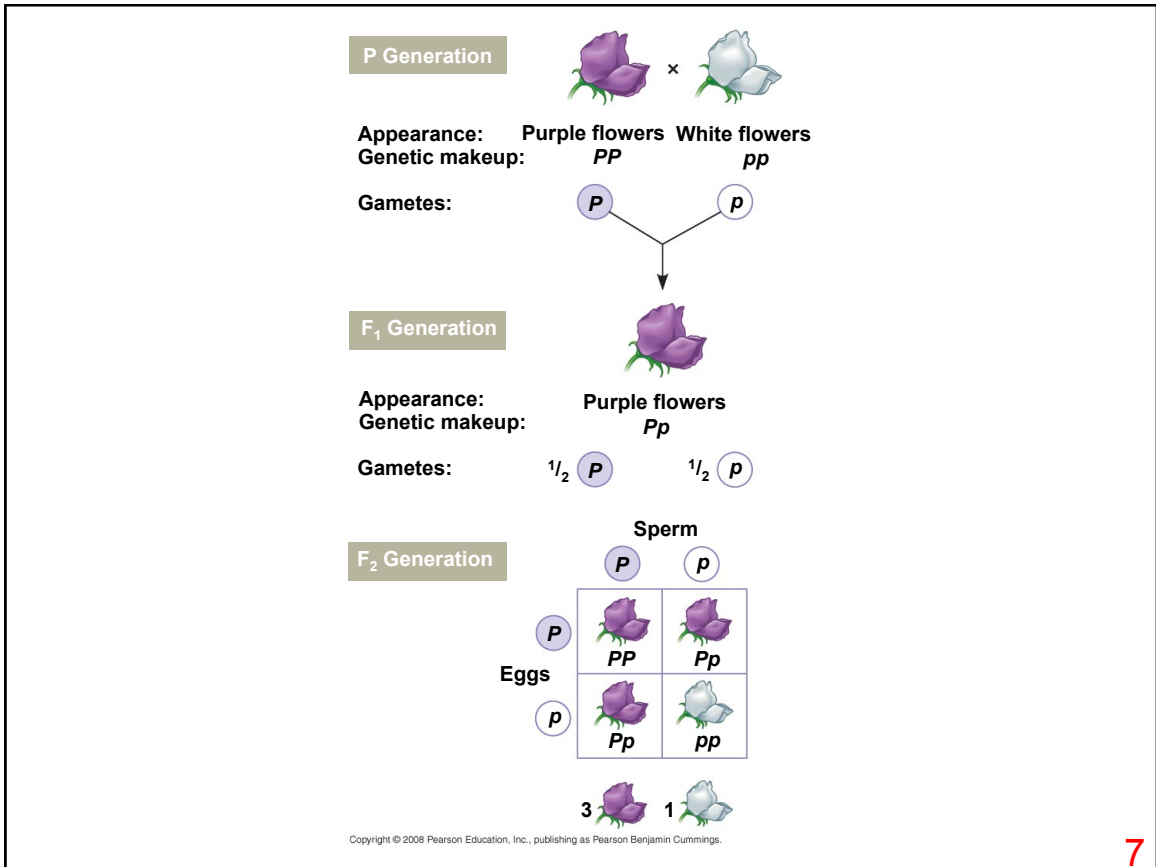
Table 14.1 The Results of Mendel's F₁ Crosses for Seven Characters in Pea Plants

Character	Dominant Trait	x	Recessive Trait	F ₂ Generation Dominant:Recessive	Ratio
Flower color	Purple	x	White	705:224	3.15:1
					
Flower position	Axial	x	Terminal	651:207	3.14:1
					
Seed color	Yellow	x	Green	6,022:2,001	3.01:1
					
Seed shape	Round	x	Wrinkled	5,474:1,850	2.96:1
					
Pod shape	Inflated	x	Constricted	882:299	2.95:1
					
Pod color	Green	x	Yellow	428:152	2.82:1
					
Stem length	Tall	x	Dwarf	787:277	2.84:1
					

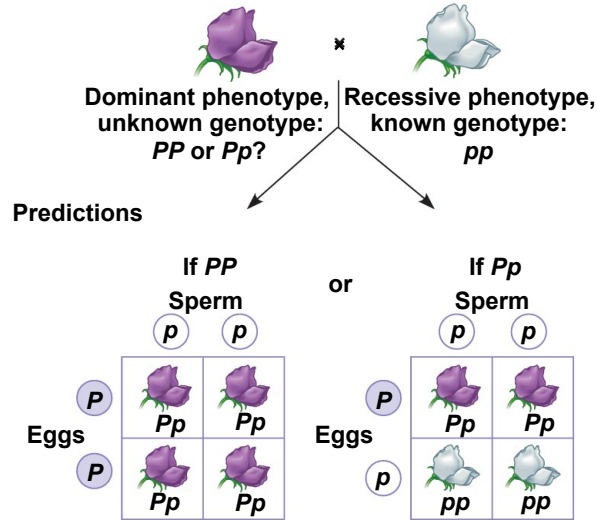
Copyright © 2008 Pearson Education, Inc., publishing as Pearson Benjamin Cummings.



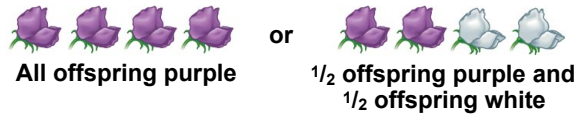
Copyright © 2008 Pearson Education, Inc., publishing as Pearson Benjamin Cummings.



TECHNIQUE



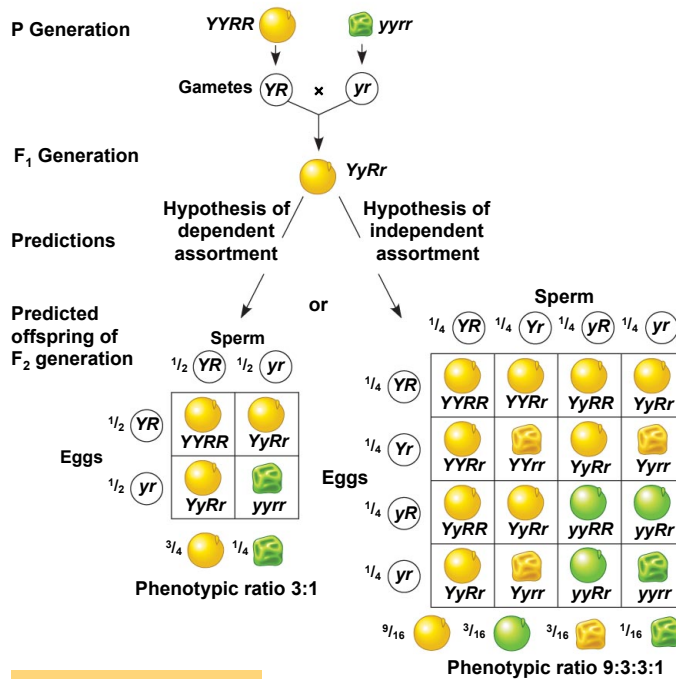
RESULTS



Copyright © 2008 Pearson Education, Inc., publishing as Pearson Benjamin Cummings.

9

EXPERIMENT

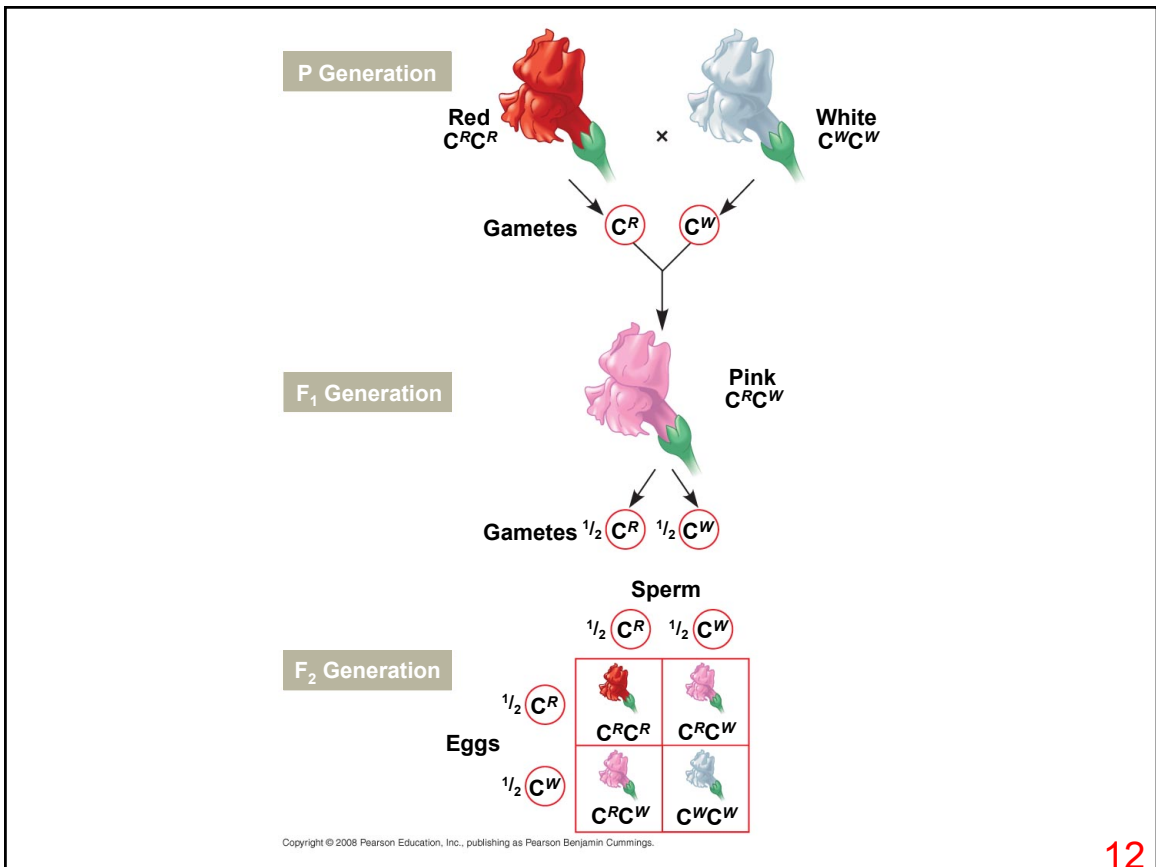
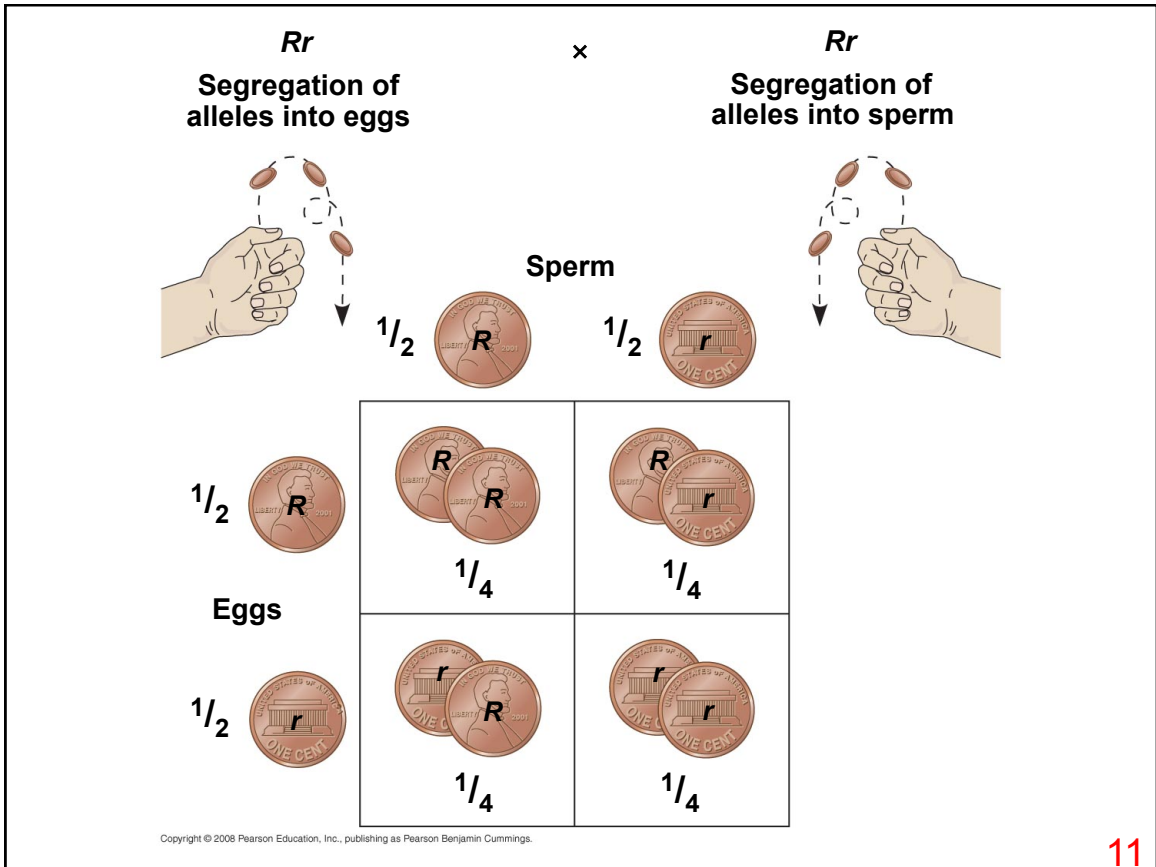


RESULTS

315 108 101 32 Phenotypic ratio approximately 9:3:3:1

Copyright © 2008 Pearson Education, Inc., publishing as Pearson Benjamin Cummings.

10







Allele Carbohydrate

I^A A Δ

I^B B \circ

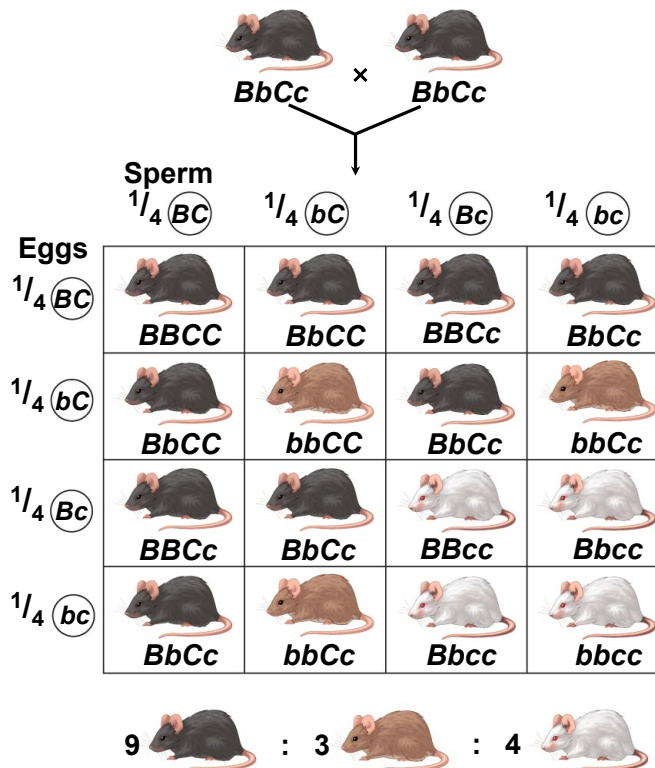
i none

(a) The three alleles for the ABO blood groups and their associated carbohydrates

<u>Genotype</u>	<u>Red blood cell appearance</u>	<u>Phenotype (blood group)</u>
$I^A I^A$ or $I^A i$		A
$I^B I^B$ or $I^B i$		B
$I^A I^B$		AB
ii		O

(b) Blood group genotypes and phenotypes

Copyright © 2008 Pearson Education, Inc., publishing as Pearson Benjamin Cummings.



Copyright © 2008 Pearson Education, Inc., publishing as Pearson Benjamin Cummings.

