

## Monohybrid Cross Problems 2

1. 

	?
T	Tt Tt
t	Tt Tt

TT × tt

2. 

	R R
R	RR RR
r	Rr Rr

RR × Rr

3. 

	R R
r	Rr Rr
r	Rr Rr

None

4. 

	P
P	Pp Pp
p	Pp Pp

PP × pp

5. 

	P p
P	Pp Pp
p	Pp Pp

50% of offspring will have purple flowers.

6. 

	P p
P	PP Pp
p	Pp pp

Since 25% are white, the parents are likely Pp × Pp (both heterozygous)

7. Both parents must be recessive pp × pp

8. 

	A A
A	AA AA
A	AA AA

AA × AA  
or  
AA × Aa

	A a
A	AA Aa
A	AA Aa

9. 

	A a
A	AA Aa
a	Aa aa

The F1 cross is between two heterozygous shorthairs.

10. 

	A a
a	Aa aa
a	Aa aa

The parents are probably Aa × aa or short hair heterozygous and long hair.

# Monohybrid Cross Problems 3

1.

	T	T
t	Tt	Tt
t	Tt	Tt

All would be tall.

	T	t
t	Tt	tt
t	Tt	tt

50/50

The unknown parent is likely Tt

2.

$TT$   
 $Tt$  } tongue rolling  
 $tt$  - not tongue rolling

Bob's mother could not, so Bob is  $Tt$

	Bob	
	T	t
Sally	t	Tt
	t	Tt

The probability that their child cannot roll his tongue is 50%.

3.

	F	f
F	FF	Ff
f	Ff	ff

For two parents who are not fainters to have a fainting goat, they must be  $Tt \times Tt$

4.

Parents must be homozygous recessive fainters  
 $ff \times ff$

	f	f
f	ff	ff
f	ff	ff

5.

$FF \times FF$

	F	F
F	FF	FF
f	FF	FF

6. OMIT (typo)

### Monohybrid Cross 3 <continued>

7.

	R	r
r	Rr	rr
r	Rr	rr

The probable genotypes are  
Heterozygous (black, Rr)  
homozygous recessive (red, rr)

8.

The genotype is also heterozygous (Rr).

	R	r
R	RR	Rr
r	Rr	rr