

Genetic Crosses:

1.

	G	g
G	GG	Gg
G	GG	Gg

G = green
 g = yellow

Genotype percentages: 50% GG, 50% Gg

Phenotype percentages: 100% green pea pods

2.

	R	W
R	RR	RW
R	RR	RW

R = Red
 W = white

Genotype percentages: 50% RR, 50% RW

Phenotype percentages: 50% Red, 50% Pink

Incomplete
 Dominance

3.

	C ^w	C ^w
C ^B	C ^B C ^w	C ^B C ^w
C ^w	C ^w C ^w	C ^w C ^w

C^B = brown
 C^w = white

Genotype percentages:
 50% C^BC^w, 50% C^wC^w

Phenotype percentages:
 50% brown and white spotted,
 50% white
 ↑
 Codominance

4.

	B	O
A	AB	AO
O	BO	OO

A = A protein
 B = B protein
 O = no protein

Genotype percentages:
 25% AB, 25% AO, 25% BO, 25% OO

Phenotype percentages:
 25% AB blood
 25% A blood
 25% B blood
 25% O blood

Name:

Period:

X^{CB} Y

5.

X^N	$X^N X^{CB}$	$X^N Y$
X^N	$X^N X^{CB}$	$X^N Y$

Genotype percentages:

50% $X^N X^{CB}$; 50% $X^N Y$

Phenotype percentages:

Boy offspring will be normal,
girl offspring will be carriers.

X^N = normal (dominant)

X^{CB} = color-blind (recessive)

6. woman = $ff\bar{S}\bar{S}$

$f\bar{S}$

$FfS\bar{s}$			

If Zach is homozygous normal

Genotype percentages:

$FFSS$ then:

100% $FFS\bar{s}$

Phenotype percentages:

No offspring will fly or have
super strength. \bar{S}

They will only be carriers.

7.

	\bar{w}	\bar{w}
W	$W\bar{w}$	$W\bar{w}$
w	$w\bar{w}$	$w\bar{w}$

Both parents must be homozygous. To get

Genotype percentages: offspring:

100% $W\bar{w}$

Phenotype percentages:

100% White

8. $RrBb \times RRBB$

RB

RB	$RRBB$		
Rb	$RRBb$		
rB	$RrBB$		
rb	$RrBb$		

Genotype percentages:

25% of each $RRBB, RRBb, RrBB, RrBb$

Phenotype percentages:

100% normal running with
black hair.

R = normal run

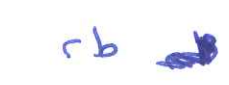
B = black hair

r = waltz

b = brown hair

Zach:
 $FFSS$
can't fly
 f = fly
 S = normal strength
 \bar{S} = super strength

W = white
 w = yellow



Name:
Period:

Dr. Kelly

9.

H^c : curly
 H^s : straight

	H^c	H^s
H^c	H^cH^c	H^cH^s
H^s	H^cH^s	H^sH^s

Genotype percentages:

25% H^cH^c , 50% H^cH^s , ~~50%~~ 25% H^sH^s

Phenotype percentages:

25% curly

* 50% wavy *

25% straight

10.

	B	O
A	AB	AO
O	BO	OO

Genotype percentages:

25% each AB, AO, BO, OO

Phenotype percentages:

The parents can have a baby with O blood if they are both heterozygous.

25% AB, 25% A, 25% B, 25% O

11.

Bb bb x Bb bb
 Bb bb

Bb	$BBbb$	$Bbbb$		
bb	$Bbbb$	$bbbb$		

Genotype percentages:

25% $BBbb$, 50% $Bbbb$, 25% $bbbb$

Phenotype percentages:

75% brown eyes

25% blue eyes *

Yes it is possible if both parent only have one brown allele.

12.

bb GG x Bb Gg
 Bg bg

bb	$BbGg$	$bbGg$		

Genotype percentages:

50% $BbGg$, 50% $bbGg$

Phenotype percentages:

50% brown eyes

50% green eyes *

Yes, it is possible if the parents have the genotypes shown.

Name:
Period:

Dr. Kelly

13.

	W	W
B	BW	BW
B	BW	BW

B: black
W: white

Genotype percentages:

100% BW

Phenotype percentages:

100% Black and white offspring.
(Codominant)

14.

	X^N	Y
X^N	$X^N X^N$	$X^N Y$
X^{CB}	$X^N X^{CB}$	$X^{CB} Y$

Genotype percentages:

25% of each $X^N X^N$, $X^N X^{CB}$, $X^N Y$, $X^{CB} Y$

Phenotype percentages:

25% homozygous normal female 25% normal male
25% carrier female 25% color blind male

15.

	R^M	R^P
R^M	$R^M R^M$	$R^M R^P$
R^M	$R^M R^M$	$R^M R^P$

Genotype percentages:

50% $R^M R^M$, 50% $R^M R^P$

Phenotype percentages:

* 50% mad rapping skills. *

50% mediocre rapping skills.

R^M = mad rapping skills

R^P = poor rapping skills