

Misc Genetics notes

True-Breeding/homozygous:

- both alleles for trait are same

EX: TT

tt

Hybrid/heterozygous:

- 2 alleles are different

gamete - sex cells

EX: sperm + eggs

tall = phenotype

Tt = genotype

Tall = T  
Short = t

♀ Tt × Tt ♂

	T	t
T	TT	Tt
t	Tt	tt

2-factor cross:

A-dom.  
a-rec.  
B-dom  
b-rec.

AaBb x AaBb

gametes:  
"FOIL"

AB  
Ab



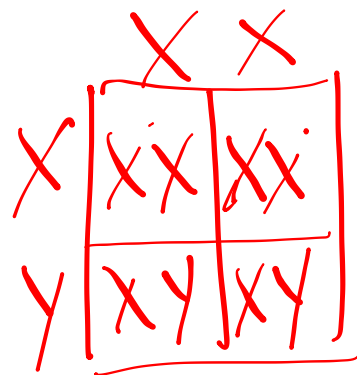
	AB	Ab	aB	ab
AB	AABB	AABb	AaBB	AaBb
Ab	AABb	AAbb	AaBb	Aabb
aB	AaBB	AaBb	aaBB	aaBb
ab	AaBb	Aabb	aaBb	aa <b>bb</b>

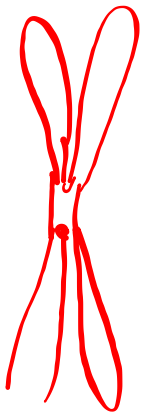
Sex-linked inheritance:

Sex chromosomes

♀ : XX

♂ : XY





y

normal = N

colorblind = n

$X^N$     $X^n$

$X^N Y$  = normal

$X^n Y$  = colorblind

$X^N X^n$  = carrier

$X^n X^n$

$$X^n Y \times X^N X^n$$

$$X^N \quad X^n$$

$X^n$	$X^N X^n$	$X^n X^n$
$Y$	$X^N Y$	$X^n Y$

1. ♀ : ggbb  
 ♂ : QqBb

P cross: QqBb X ggll (gl)

Gametes:

QqBb  
 QB  
 Qb  
 qB  
 qb

	QB	Qb	qB	qb
gl	QgBb	Qgb	qgBb	qgb

1:1:1:1

phenos:  
 Quick, brown - 1  
 Slow, brown - 1  
 Quick, white - 1  
 Slow, white - 1

