Tay Sachs disease is due to a recessive gene (h) that causes death within the first few years of life. The dominant allele at this locus produces a normal phenotypes. Abnormally shortened fingers (brachyphalangy) is thought to be due a heterozygous genotype for a lethal gene (b). What are the **phenotypic expectations** among teenage children from parents who are both brachyphalangic and heterozygous for Tay Sachs disease?

	HB	Hb	hB	hb
HB	HHBB	HHBb	HhBB	HhBb
Hb	HHBb	HHbb	HhBb	Hhbb
hB	HhBB	HhBb	hhBB	hhBb
hb	HhBb	Hhbb	hhBb	hhbb

	HB	Hb	hB	hb
HB	Normal HHBB	Brachy HHBb	Normal HhBB	Brachy HhBb
Hb	Brachy HHBb	HHbb	Brachy HhBb	Hhbb
hB	Normal HhBB	Brachy HhBb	hhBB	hhBb
hb	Brachy HhBb	Hhbb	hhBb	hhbb

The recessive genotypes at another locus (j) results in death before age 18 due to "juvenile amaurotic idiocy" (JAI). Only individuals who are heterozygous for both Tay Says and JAI will survive to adulthood.

a) What proportion of the children from HhJj parents could probably survive to adulthood?

b)

	HJ	Hj	hJ	hj
HJ	HHJJ	HHJj	HhJJ	HhJj
Hj	HHJj	HHjj	HhJj	Hhjj
hJ	HhJJ	HhJj	hhJJ	hhJj
hj	HhJj	Hhjj	hhJj	hhjj

	HJ	Hj	hJ	hj
HJ	Normal HHJJ	Normal HHJj	Normal HhJJ	Normal HhJj
Hj	Normal HHJj	HHjj	Normal HhJj	Hhjj
hJ	Normal HhJJ	Normal HhJj	hhJJ	hhJj
hj	Normal HhJj	Hhjj	hhJj	hhjj

The recessive genotypes at another locus (j) results in death before agar 18 due to "juvenile amaurotic idiocy" (JAI). Only individuals who are heterozygous for both Tay Says and JAI will survive to adulthood.

  a) What proportion of the children from HhJj parents could probably survive to adulthood?

  b) What proportion of the adult survivors in part (a) would **not** be carriers of either hereditary abnormality?

	HJ	Hj	hJ	hj
HJ	Normal	Normal	Normal	Normal
Hj	Normal		Normal	
hJ	Normal	Normal		
hj	Normal			

Inheritance of Coat Color in Dogs

Black x Black = Black

Black x Black =
3 black:1 chocolate

Coat Color

Heterozygous black x Chocolate =

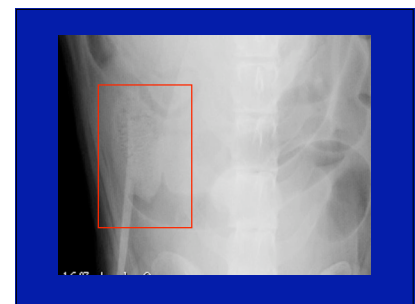## Coat Color

Where does yellow come from?

EE = no yellow
Ee = carries yellow
ee = yellow

Epistasis

EE = no yellow
Ee = carries yellow
ee = yellow

What do you get if:

Yellow dog, heterozygous for black x
Chocolate dog, heterozygous for yellow

Coat color in cats is X-linked.
X^B=black
X^b=orange
The heterozygous condition is calico.

How much will a male calico cat sell for?

In: Cats (Felines) [Edit categories]

Answer:

Usually less than one thousand dollars . Most sell for $200 to $600 Dolllars It must be beedable to be worth anything . Neuters are worthless . Also it must be a TRUE calico that is patches of orange ,black , and white . Perhaps you should keep and breed yours we need a strain to breed from .