

## Sex linked traits #2

Calico is a coat color found in cats, which is caused by a sex-linked, codominant allele. B=black, R= orange and BR=calico. Identify the phenotypes below.

$X^B X^B$

$X^R Y$

$X^R X^R$

$X^B X^R$

$X^B Y$

Is it possible to have a male calico cat?

Cross black male cat with and orange female. What are the expected phenotypes? (remember the percentages are different for sex linked traits)

	X	X		
X			Female black	%
Y			Female calico:	%
			Male Black:	%
			Male orange:	%
			female orange	%

Show a cross between an orange male and a calico female. What are the phenotypes of the offspring?

	X	X		
X			Female black:	%
Y			Female Calico	%
			Male black	%
			Male orange	%
			Female orange	%

Cross a black male with a black female? What are the expected phenotypes?

	X	X
X		
Y		

Female Black:   %   female orange       %

Female calico       %

Male black       %

Male orange       %

Cross and orange male with an orange female. What are the expected phenotypes?

	X	X
X		
Y		

Female black       %       Female orange       %

Female calico       %

Male black       %

Male orange       %

Show a cross between a black male and a calico female. What are the expected phenotypes?

	X	X
X		
Y		

Female black       %   female orange       %

Female calico       %

Male black       %

Male orange       %

If you were a cat breeder, what type of parents should you choose to have the MOST number of calico kittens?