## 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.

 $X^BX^B$ 

XRY

 $X^RX^R$ 

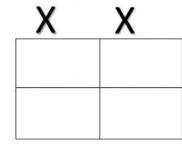
 $X^BX^R$ 

XBY

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



Female black % female orange %

Female calico: %

Male Black: %

Male orange: %

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

Male orange

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72 <u></u>	X	X	

Female black: % Female orange %
Female Calico %
Male black %

%



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

	X	X			
X			Female Black:	% female orange	%
X			Female calico	%	
γ			Male black	%	
•			Male orange	%	

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

	X	X				
			Female black	%	Female orange	%
X			Female calico	%		
V			Male black	%		
Y			Male orange	%		

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

Х	Χ			
	Female black	%	female orange	%
X	Female calico	%		
* `	Male black	%		
Υ	Male orange	%		

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

