

Sex Linked Recessive Genetic Crosses involving Red-Green Colorblindness

1. **SEX** **XX** & **Xy**

1 : 1 = actually 100 to 106

more males conceived
more males die before birth
thus have 1 : 1

	X	y
X	XX	Xy
X	XX	Xy

2. **SEX LINKED** (trait on X chromosome)
female carrier (**Rr**) & normal male (**Ry**)

X^RX^r **X^RY**

- a) 1 : 1 males and females
- b) 3 : 1 cb to normal
- c) 100% normal females
- d) 50/50 normal males to cb males

	X^R	y
X^R	X^RX^R	X^Ry
X^r	X^RX^r	X^ry

female carrier (**Rr**) & cb male (**ry**)

X^RX^r **X^rY**

- a) 50/50 males and females
- b) 1 : 1 cb to normal females
- c) 1 : 1 cb to normal males

	X^r	y
X^R	X^RX^r	X^Ry
X^r	X^rX^r Sally	X^ry

mom

If Sally's **Maternal Grandpa** was normal,
What is the Genotype of Sally's
MATERNAL GRANDMA?

	X^R	y
?		
?	X^RX^r Sally's mom	