

Calculate $\chi^2 = 127$

DF = 3-1 = 2

$\chi^2 = 3.841$ and therefore value calculated is too high and therefore reject the hypothesis. Genotype frequencies observed do to measure the expected frequencies.

Inbreeding could have caused a reduction in the amount of heterozygotes present. Hetero's could be dying.

—> You could also assume or estimate allelic frequencies.

Flower colour

RR, Rr = Red

rr = white

	Red	White	Total
# of expected phenotype	75	25	100
Proportion	0.75	0.25	
Assume HW	$p^2 + 2pq$	q^2	

$$q^2 = 0.25, q = 0.5$$

$$p = 1 - q = 0.5$$

$$\begin{array}{ccc} p^2 & 2pq & q^2 \\ 0.25 & 0.5 & 0.25 \end{array}$$

DF = 2-1-1 = 0 cannot perform Chi squared test on 0 df.

You can use HW proportions to estimate allele frequency when theres dominance.

Can do a test cross to figure out the genotype of the red flower.

$I^A I^A$ $I^A i$ $p^2 + 2pr$

$I^B I^B$ $I^B i$ $q^2 + 2qr$

$I^A I^B$ $2pq$

ii r^2

Can assume HW equilibrium