

①

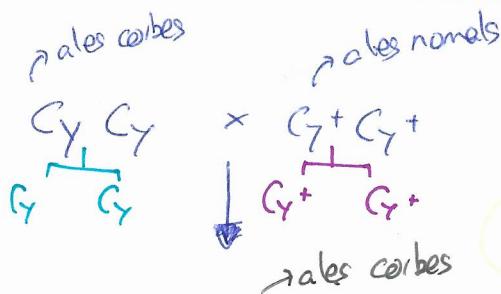
$C_Y \rightarrow$  ales carbes

$C_Y^+ \rightarrow$  ales nomals / estriades

Dominante

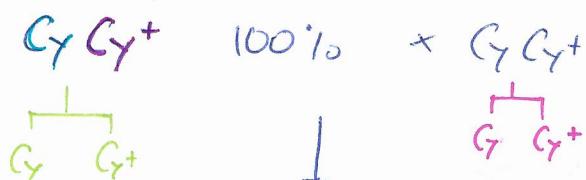
$$| C_Y > C_Y^+ |$$

P



# 15

F<sub>1</sub>



		$C_Y$	$C_Y^+$	
$C_Y$	$C_Y$	$C_Y \quad C_Y$	$C_Y \quad C_Y^+$	1: $C_Y \quad C_Y$
	$C_Y^+$	$C_Y \quad C_Y^+$	$C_Y^+ \quad C_Y^+$	2: $C_Y \quad C_Y^+$
		$C_Y^+$	$C_Y^+ \quad C_Y^+$	1: $C_Y^+ \quad C_Y^+$
$C_Y^+$	$C_Y$	$C_Y \quad C_Y^+$	$C_Y^+ \quad C_Y^+$	1: $C_Y^+ \quad C_Y^+$
	$C_Y^+$	$C_Y^+ \quad C_Y^+$	$C_Y^+ \quad C_Y^+$	2: $C_Y^+ \quad C_Y^+$

# 15

3: ales carbes

1: ales nomals

# 5

②

$e^+ \rightarrow$  cos marró

$e \rightarrow$  cos negre

$$| e^+ > e |$$

a) ♂ homozigot recessiu  
♀ heterozigot.

P

marró

?

♂ negre

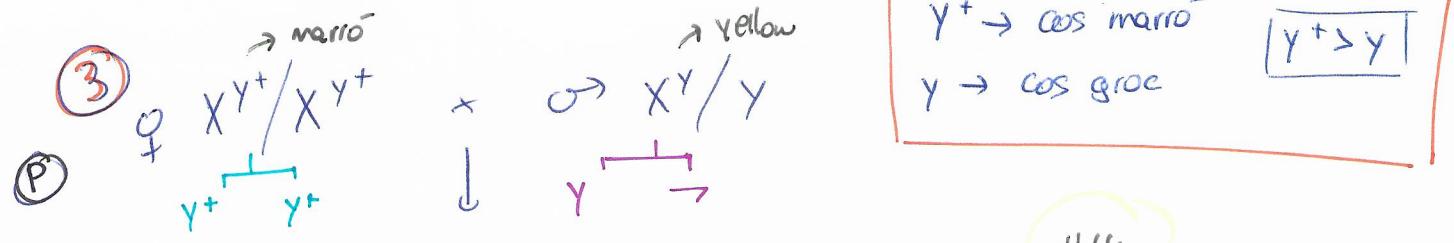
ee

negre  
ee

		$e^+ \quad e$	$ee$	
$e^+$	$e^+$	$e^+ \quad e$	$ee$	♂: marró
	$e$	$e^+ \quad e$	$ee$	♀: negre
$e$	$e^+$	$e^+ \quad e$	$ee$	
	$e$	$e^+ \quad e$	$ee$	

# 10

# 9



#14

$X^{Y^+} X^Y$	$X^{Y^+}/Y$	100% marro
$X^{Y^+} X^Y$	$X^{Y^+}/Y$	

♀ ♂

(F<sub>1</sub>) ♀  $X^{Y^+} X^Y$  × ♂  $X^{Y^+}/Y$

$\downarrow$       ↓

$\frac{Y^+}{Y} \quad Y^+$

$\rightarrow$  marro → marro

$\frac{X^{Y^+}/X^Y}{X^Y/X^{Y^+}}$

$\frac{X^{Y^+}/Y}{X^Y/Y}$

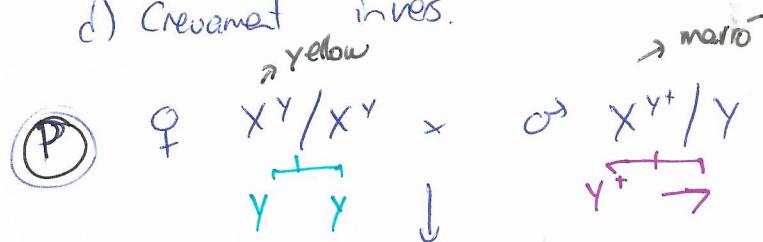
$\rightarrow$  yellow

♀ ♂

3:1 yellow.

↳ ♀ 100% marro #12  
 ♂ 50-50% #6

d) Crossover inves.



(F<sub>1</sub>) ♀ marro 100% ♂ yellow 100% !!!

(F<sub>2</sub>) ♀ yellow Y ♂ yellow

$\frac{X^Y X^Y}{X^{Y^+} X^Y}$

$\frac{X^Y/Y}{X^{Y^+}/Y}$

♀ 50-50 ♂ 50-50.

marro ♀ ♂ marro

Renotyp 1:1 (50% yellow). !!!

(4)

 $w^+ \rightarrow$  ulls vermells $w \rightarrow$  ulls blancs $|w^+ > w|$ a) Totes les opcions parentals  $\Rightarrow$  (vermell - blanc)# 20 vermell (♀)  
# 18 blanc (♂)1)  $\boxed{\text{♀ white} \times \text{♂ red}}$  $w \quad w \quad w^+ \rightarrow$  $F_1: \begin{array}{l} w \quad w^+ \\ w \rightarrow \end{array} \begin{array}{l} \text{♀ red} \\ \text{♂ white} \end{array}$  $\boxed{F: 50\% - 50\%}$   
 $\downarrow \quad \downarrow$   
 $\text{♀} \quad \text{♂}$ 2)  $\boxed{\text{♀ red} \times \text{♂ white}}$  $w^+ \quad w^+ \quad w \rightarrow$  $F_1: \begin{array}{l} w \quad w^+ \\ w^+ \rightarrow \end{array} \begin{array}{l} \text{♀ red} \\ \text{♂ red} \end{array}$  $\boxed{F: 100\% \text{ (red)}}$ 3)  $\boxed{\text{♀ red} \times \text{♂ white}}$  $w^+ \quad w \quad w \rightarrow$  $F_1: \begin{array}{l} w^+ \quad w \quad \text{♀ red} \\ w \quad w \quad \text{♀ white} \\ w^+ \rightarrow \quad \text{♂ red} \\ w \rightarrow \quad \text{♂ white} \end{array}$  $\boxed{F: 50\% - 50\%}$   
 $\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$   
 $\text{♀} \quad \text{♂} \quad \text{♀} \quad \text{♂}$ b) Proporcions  $F_2$ .

		$w$	$\rightarrow$
$w$	$w \quad w$	$w \rightarrow$	
$w^+$	$w^+ \quad w$	$w^+ \rightarrow$	
		$\text{♀}$	$\text{♂}$

 $\boxed{F: 50\% - 50\%}$   
 $\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$   
 $\text{♀} \quad \text{♂} \quad \text{♀} \quad \text{♂}$ # 18 ♀ vermelles  
# 16 ♂ vermelles  
# 21 ♀ blancs  
# 17 ♂ blancs

c) Genotip parental si totes mosques F<sub>1</sub> red (♀ ♂)

Operācī 1:	$\frac{\varphi \text{ red} \times \circlearrowleft \text{ red}}{w^+ w^+ \downarrow \quad w^+ \rightarrow}$
	$w^+ w^+ \varphi \text{ red}$ $w^+ \rightarrow \circlearrowleft \text{ red}$
	$\boxed{F: 100\% \mid (\text{red})}$

$$\begin{array}{c}
 \text{Oper 2.} \quad | \quad \overline{\text{♀ red} \times \text{♂ white}} \\
 \text{---} \\
 \text{♀ red} \quad | \quad \text{♂ white} \\
 \text{---} \\
 \text{w+ w+} \quad | \quad \text{w-} \\
 \text{---} \\
 \text{w+ w} \quad \text{♀ red} \\
 \text{w+} \rightarrow \text{♂ red} \\
 \text{---} \\
 | \quad \underline{\text{F: 100% (red)}}
 \end{array}$$

d) Genotip parental si: # 48 ♀ vermell  
# 26 ♂ vermell  
# 24 ♂ blanc

\* ♂ red : white → mare heterozygote. (red)

\* ♀ remell → pane red

$$\begin{array}{c} \text{♀ red} \times \text{♂ red} \\ \hline \text{w+ w} \quad \downarrow \quad \text{w+ } \rightarrow \end{array}$$

w +	w +	♀	red
w	w +	♀	red
w +	→	♂	red
w	→	♂	white

F: 75% - 25%

## 5 Dittíbrizioisne

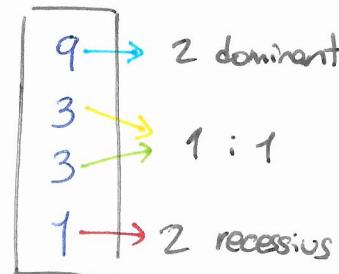
marge de les ales → sencer  
serrat (\*)

color del cos → marro→  
negre (\*)

3er. Llei de Mendel: "Herència independent caràcters"

Individus heterozigots 2 gens ( $F_1$ ) → ( $F_2$ )

(2 gens = 4 alt-lets →  $4 \times 4 = 16$  combinacions)



	OBSERVAT	ESPERAT	
marro, sencer	= 580	$9/16$ de 990 = 556 *	
marro, serrat	= 180	$3/16$ de 990 = 186 *	
negre, sencer	= 60	$1/16$ de 990 = 62 *	
negre, serrat	= 170	$3/16$ de 990 = 186 *	
	990 TOTAL		

"serrate" (ser)

$Ser^+ \rightarrow$  marge sencer

$Ser \rightarrow$  marge serrat \*

$$\boxed{Ser > Ser^+}$$

"ebony" (e)

$e^+ \rightarrow$  cos marro→

$e \rightarrow$  cos negre \*

$$\boxed{e^+ > e}$$

(F<sub>1</sub>)  $Ser^+ Ser ; e^+ e \rightarrow$  marge serrat, cos marro→

$F_2$	$Ser^+ e^+$	$Ser^+ e$	$Ser e^+$	$Ser e$
$Ser^+ e^+$	■	■	■	■
$Ser^+ e$	■	■	■	■
$Ser e^+$	■	■	■	■
$Ser e$	■	■	■	■

