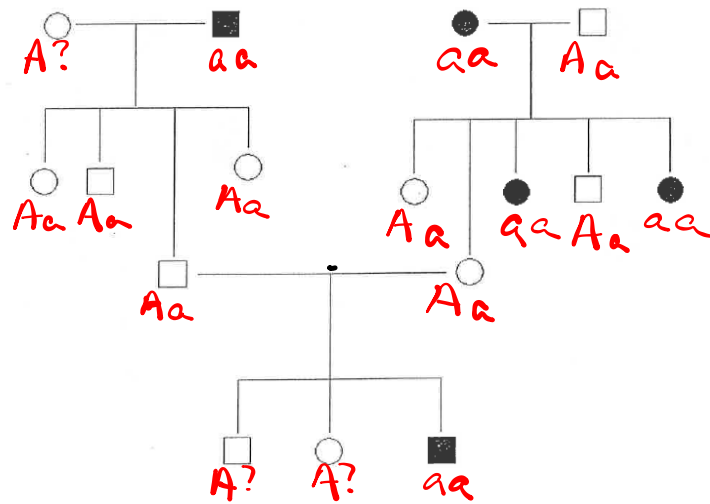
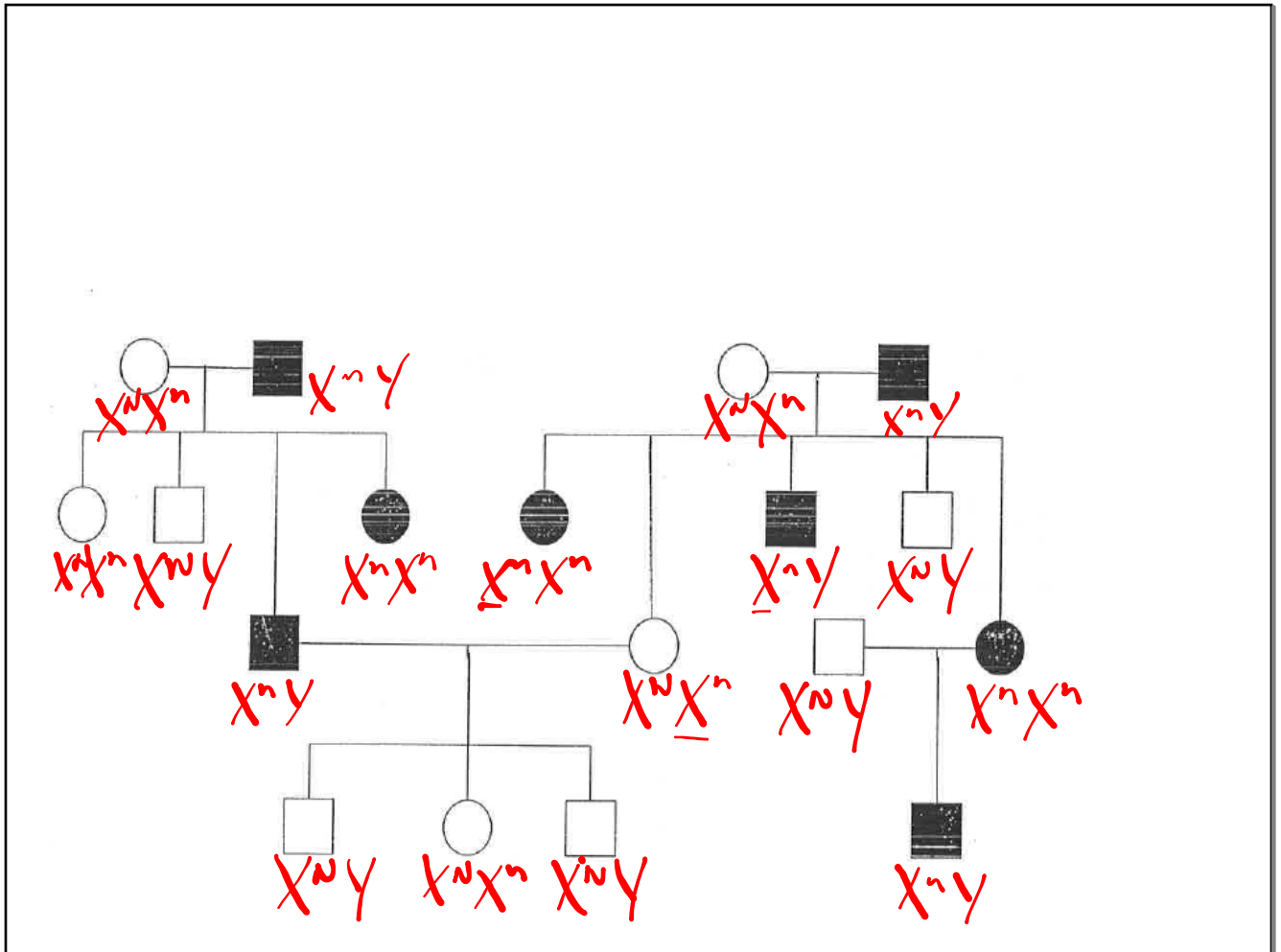


choose:  $\begin{cases} AA \\ Aa \\ aa \\ A? \end{cases}$





Monohybrid:

P<sub>1</sub>: TT x tt  
 tall      short

F<sub>1</sub>: Tt x Tt      100% tall

F<sub>2</sub>

	T	t
T	TT	Tt
t	Tt	tt

   phenotype ratio:  
 (3:1)

D: hybrid:

P:  $YYRR \times yyrr$   
 yellow, round      green, wrinkled

F<sub>1</sub>:  $(YyRr) \times YyRr$   
 yellow, round      yellow, round

F<sub>1</sub> cross

GAMETES:  
"FOIL"

YR    yR  
 Yr    yr

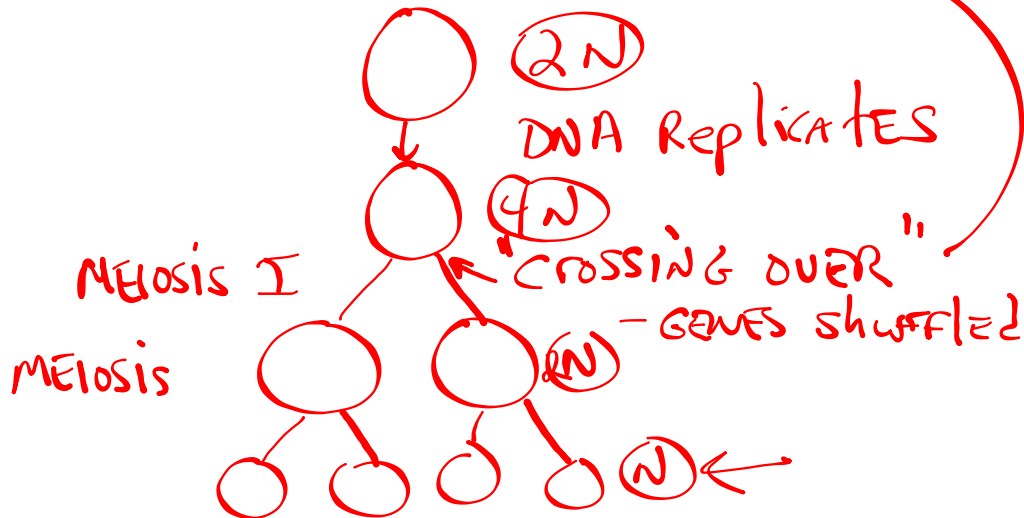
F<sub>2</sub>

9:3:3:1  
 ↓

	YR	Yr	yR	yr
YR	YYRR	YYRr	YyRR	YyRr
Yr	YYRr	YYrr	YyRr	Yyrr
yR	YyRr	YyRr	yyRR	yyRr
yr	YyRr	Yyrr	yyRr	yyrr

MEIOSIS → GAMETES

- haploid -  $\frac{1}{2}$  # chromosomes
- genetically different



KARYOTYPE -

1	2	3	4	5	6	7		
					"			
8	9	10	11	12	13	14		
"								
15	16	17	18	19	20	21	22	X

---

$XX \times XY$

	X	X
X	XX	XX
Y	XY	XY

## Blood groups:

Rh = + or -  
 ABO - multiple alleles  
 - codominance

$$I_A I_B = AB$$

$$I_A I_A \text{ or } I_A i = A$$

$$I_B I_B \text{ or } I_B i = B$$

$$ii = O - \text{universal donor}$$

$$AB = \text{universal recipient}$$



Independent Assortment  
alleles for traits  
Sort separately into gametes

incomplete dominance -  
both alleles contrib. to phenotype  
hybrid pheno. is "blend"

codominance - both traits show  
in phenotype

multiple alleles - more than 2  
possible phenotypes

polygenic - more than 1 gene  
contributes to trait 