

Calculation of recombination frequency = **map distance**

AB//AB x ab//ab => AB//ab

AB//ab x ab//ab =>

phenotype	count	recomb type
'AB'	400	Parental
'Ab'	100	Recombinant
'aB'	100	Recombinant
'ab'	400	Parental

Then, $(100 + 100) / 1000 = 0.20$ =>

20% **recombination**

20 **map units (m.u.)**

20 **centimorgans (cM)**

-o-----A-----20-----B-----

Homework: Explain the following results, if *D* and *E* are completely linked

DDEE x ddee => DdEe x DdEe (self) =>

phenotype	count	recomb type
DE	750	Parental
De	0	Recombinant
dE	0	Recombinant
de	250	Parental

DDee x ddEE => DdEe x DdEe (self) =>

phenotype	count	recomb type
DE	500	Recombinant
De	250	Parental
dE	250	Parental
de	0	Recombinant