

Chromosome Mapping in *Drosophila*

The following data were collected from repeated crosses of fruit flies (*D. melanogaster*). The data show the recombination frequency (in percent) for pairs of genes in the crosses. In other words, the percent of offspring that had phenotypes different from the parents. The eight genes are located on the same side of the centromere on chromosome 3. The veinlet gene is located one map unit from the centromere and acts as a good starting point.

Draw a scaled chromosome map for chromosome 3 of *D. melanogaster*. A suggested scale is 1 map unit = 1 mm. Show the locations of the eight genes including the veinlet gene.

	Veinlet veins	Javelin bristles	Stripe body	Minute bristles	Hairless bristles
Scarlet eyes		24.8	18.0		
Cardinal eyes	74.6		12.7	31.5	
Javelin bristles					50.3
Minute bristles					36.7
Hairy body	26.4	7.3	35.5		43.0