

1999 Problem Set 6 Question 3 (missing in the booklet, the diagrams are in there)

Calculate LOD scores for linkage at $\theta = 0$ between:

- (a) The disease and SSR1 in Family 1.
- (b) The disease and SSR2 in Family 1.
- (c) The disease and SSR1 in Family 2.
- (d) The disease and SSR2 in Family 2.
- (e) SSR1 and SSR2 in Family 1.
- (f) SSR1 and SSR2 in Family 2.

Is it appropriate to add together the LOD scores calculated in:

- (g) Parts (a) and (c) of this question? Why or why not?
- (h) Parts (c) and (d) of this question? Why or why not?
- (i) Parts (e) and (f) of this question? Why or why not?
- (j) What conclusion (in terms of genetic linkage) can you and your colleague publish based on these findings?