

Bulk Segregant Analysis exercise

We will split into 2 groups to improve the efficiency of analyzing the data. Each group will be tallying up the observed frequency of the “A” allele in a different subset of the data.

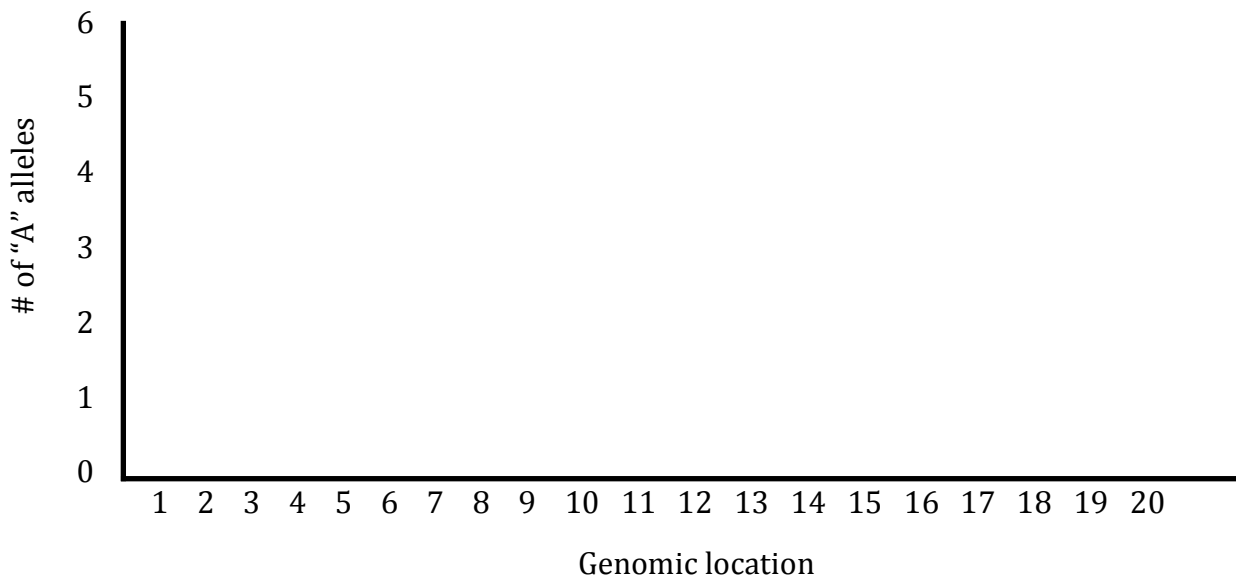
Group 1: genotype subset with complex phenotypes (6 ind)

Group 2: genotype subset with simple phenotypes (6 ind)

Each group will be provided an additional sheet with a table on it. In that table each column represents a different individual or genotype. Each row in the table represents the allelic identity at different positions spread across a small section of the genome. All individuals that have the same letter are genetically identical at that location.

First, tally up in the column to the right of your table how many “A” alleles are present at each genomic location across all the individual genotypes.

Second, draw a line graph of your results on the chart below. Pick one representative who will be in charge of recreating that graph on the board.



Group 1: genotype subset with complex phenotypes (6 ind)

genotype-> position:	1	2	6	9	14	20	#of A's	Abs. Dev. Group 1	Abs. Dev. Group 2	Summed deviation
1	A	B	B	A	A	A				
2	A	A	A	B	A	A				
3	B	A	A	B	B	B				
4	B	B	B	A	A	A				
5	B	A	A	B	B	B				
6	B	B	B	B	B	B				
7	A	A	A	A	A	A				
8	A	B	B	A	A	A				
9	B	A	A	B	B	B				
10	A	B	B	A	B	A				
11	B	B	A	B	A	B				
12	A	A	A	A	A	A				
13	B	A	A	B	B	B				
14	A	B	B	A	B	A				
15	A	B	B	A	A	A				
16	B	A	A	B	B	B				
17	B	B	B	B	B	A				
18	A	A	B	B	A	B				
19	B	A	A	B	B	B				
20	A	A	B	B	A	B				

Group 2: genotype subset with simple phenotypes (6 ind)

genotype-> position:	3	4	12	16	18	24	# of A's	Abs. Dev. Group 1	Abs. Dev. Group 2	Summed deviation
1	B	B	B	B	A	A				
2	B	B	B	A	B	B				
3	A	A	A	A	B	B				
4	A	B	B	B	A	A				
5	A	A	A	A	B	B				
6	A	A	A	A	B	B				
7	B	B	B	B	B	B				
8	B	B	B	B	A	A				
9	A	A	B	A	B	B				
10	B	A	B	B	A	A				
11	A	B	A	A	B	A				
12	B	B	B	B	B	B				
13	A	A	A	A	B	B				
14	B	B	A	B	A	A				
15	B	B	B	B	A	A				
16	A	A	A	A	B	B				
17	B	A	A	A	A	A				
18	B	B	A	B	A	A				
19	A	A	A	A	B	B				
20	A	B	A	A	B	A				