Problem (extra credit. 20 pts)

A) Selection against the **recessive** allele with selection coefficient s=0.5. Start with the frequency of AA = 0.36 and the frequency of aa = 0.16 among the newborn individuals. Fill in the table below

	Genotypes			Alleles	
	AA	**Aa**	**aa**	**A**	**a**
Initial frequencies, *f*					
Fitness (*w*)					
Product ($f_i w_i$)					
Whole-population fitness $\bar{w} = \sum f_i w_i$					
Frequencies after selection $\frac{f_i w_i}{\bar{w}}$ for each cell					

B) Selection against the **dominant** allele with selection coefficient s=0. 5. Start with the frequency of AA = 0.36 and the frequency of aa = 0.16 among the newborn individuals. Fill in the table below

	Genotypes			Alleles	
	AA	**Aa**	**aa**	**A**	**a**
Initial frequencies, *f*					
Fitness (*w*)					
Product ($f_i w_i$)					
Whole-population fitness $\bar{w} = \sum f_i w_i$					
Frequencies after selection $\frac{f_i w_i}{\bar{w}}$ for each cell					

Explain the differences between scenarios A) and B). Speculate about the fate of this population in 100 generations, sketch the frequency of A as a function of time. You may assume that the initial size pf population is 1000. Hint: you can use PopG to support your conclusions.