Locus G is characterized within our population by the following quantities:

- Genotype frequency: Rate of occurrence of each genotype in the population:

$$f(G_1G_1) = \frac{\#G_1G_1\text{-genotypes}}{N} = \frac{4}{10} = 0.4$$

$$f(G_1G_2) = \frac{3}{10} = 0.3$$

$$f(G_2G_2) = \frac{3}{10} = 0.3$$

- Allele frequency:

$$f(G_1) = \frac{\#G_1\text{-alleles}}{2 \cdot N} = \frac{2 \cdot 4 + 3}{20} = \frac{11}{20} = 0.55$$

$$f(G_2) = \frac{3 + 2 \cdot 3}{20} = \frac{9}{20} = 0.45$$