$$\alpha_1 = \mu_1 - \mu = p \cdot a + q d - \left[(p-q)a + 2pqd \right] \quad \boxed{4}$$

$$= p a + q d - p a + q a - 2pqd$$

$$= q d + q a - 2pqd$$

$$= q (a + d - 2pd)$$

$$= q (a + (1 - 2p)d)$$

$$= q \underbrace{(a + (q-p)d)}_{= \alpha} = q \alpha$$

For G_2 - Allele :

$$\mu_2 = p \cdot d + q \cdot (-a) = pd - qa$$

$$\alpha_2 = \mu_2 - \mu = \ldots = -p\alpha$$

Breeding values of genotype $G_i G_j$ is the sum of $\alpha_i + \alpha_j$

Genotypes	$G_1 G_1$	$G_1 G_2$	$G_2 G$
BV_{ij}	$\alpha_1 + \alpha_1 = 2q\alpha$	$\alpha_1 + \alpha_2 = (q-p)\alpha$	$\alpha_2 + \alpha_2 = -2p\alpha$

$$R = j \cdot \boxed{\begin{array}{c} r_{u,0} \\ \downarrow \\ 0.6 \\ 0.8 \end{array}} \cdot \overline{\sigma}_u \longrightarrow \text{Heritability } h^2 = \dfrac{\overline{\sigma}_u^2}{\overline{\sigma}_p^2}$$

$$[1,2]$$

$$0.001 - 0.01$$