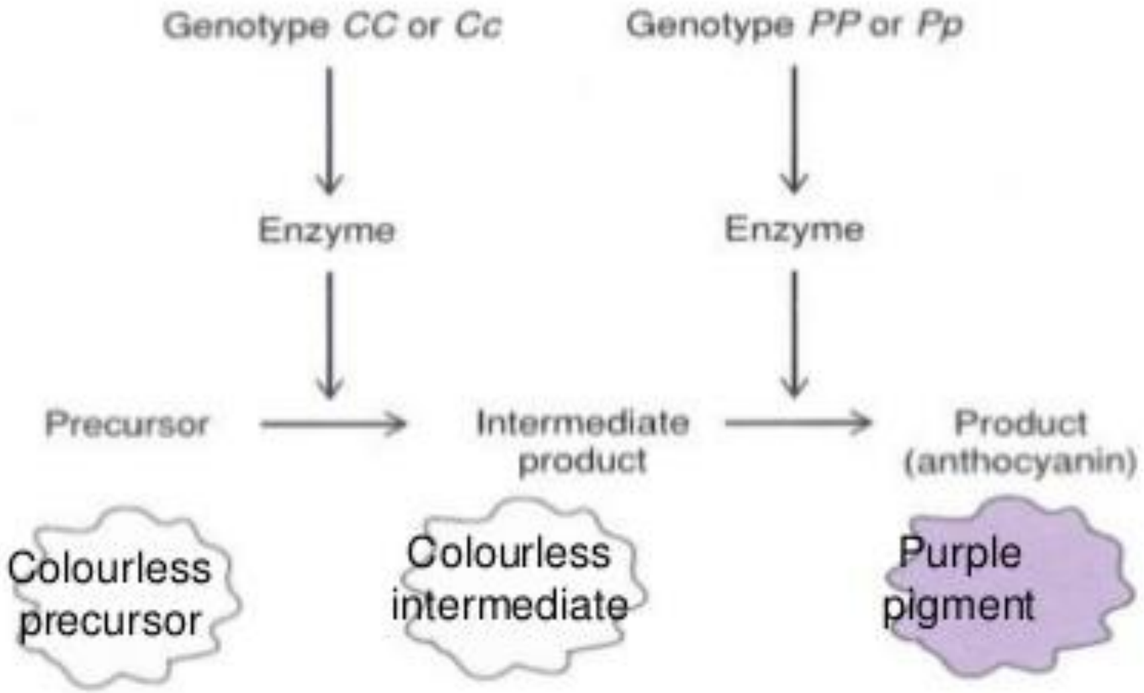
CHAPTER 5

Principle of inheritance- Complementary gene interaction

Complementary gene action - interactions arise because the two genes encode proteins that participate in sequence in a biochemical pathway

Enzyme C and enzyme P cooperate to make a product, therefore they complement one another



2. Complementary gene interaction

- If both gene loci have homozygous alleles and both of them produce identical phenotypes the F2 ratio become 9:7 instead 9:3:3:1

- In such case, the genotype aaBB, aaBb, Aabb, aabb produce one phenotype.

- Both dominant alleles when present together each other are called complementary genes and produce a different phenotype.

In sweet pea Presence of genes CC, cc, PP and pp in homozygous condition produces no color (white) because expression of chromogen doesn't occur in homozygous condition while expression of chromogen occurs when these two genes present in heterozygous condition