**17.5 Monohybrid inheritance**

**Define *genotype*** - the genetic make-up of an organism in terms of the alleles present (e.g. Tt or GG).

**Define *phenotype*** - the observable features of an organism (e.g. tall plant or green seed)

**Define *homozygous*** - having two identical alleles of a particular gene (e.g. TT or gg)**. Two identical homozygous individuals that breed together will be pure-breeding**

**Define *heterozygous*** - having two different alleles of a particular gene (e.g. Tt or Gg)**. A heterozygous individual will not be pure-breeding**

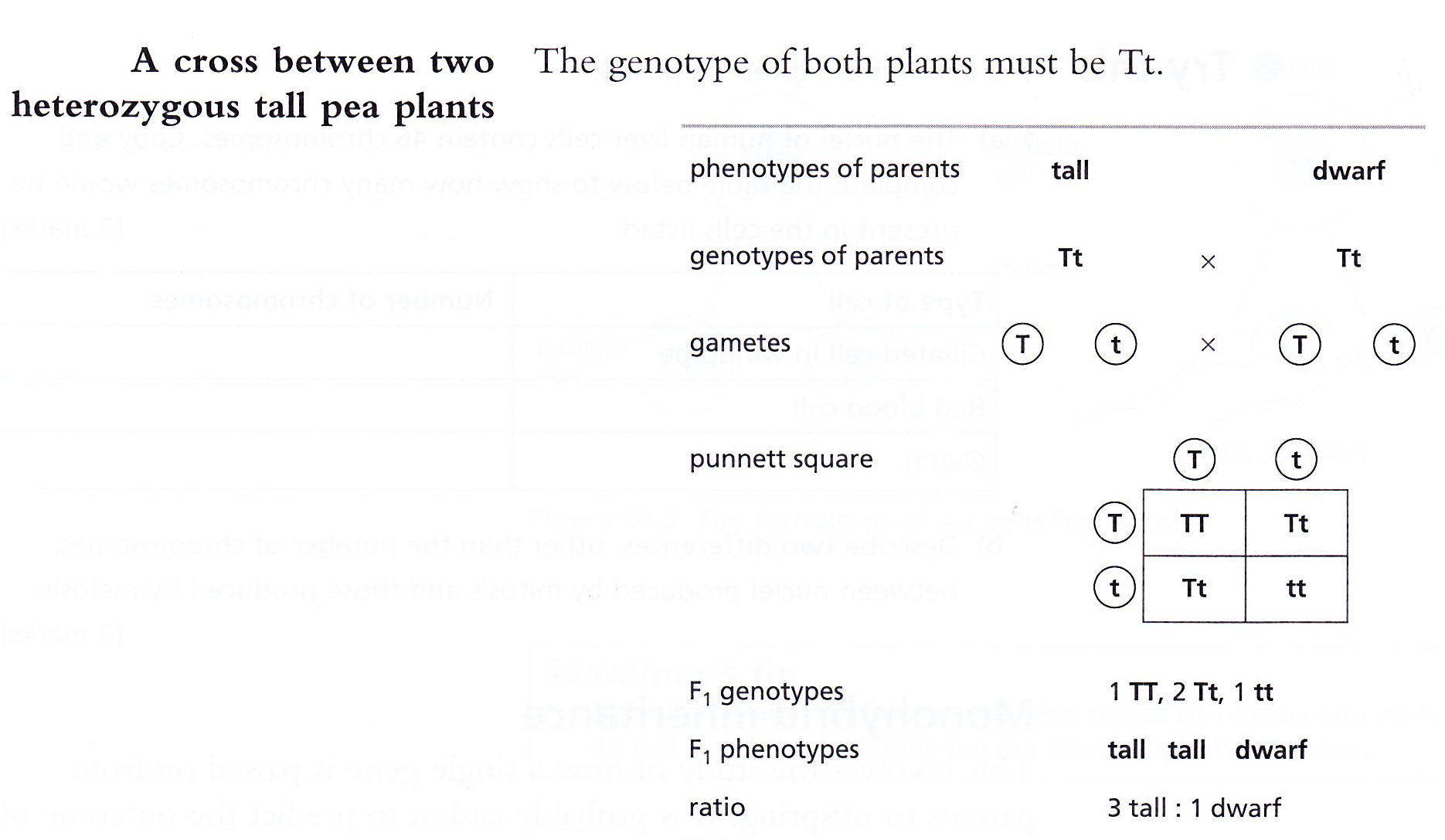
**Define *dominant*** - an allele that is expressed if it is present (e.g. T or G)

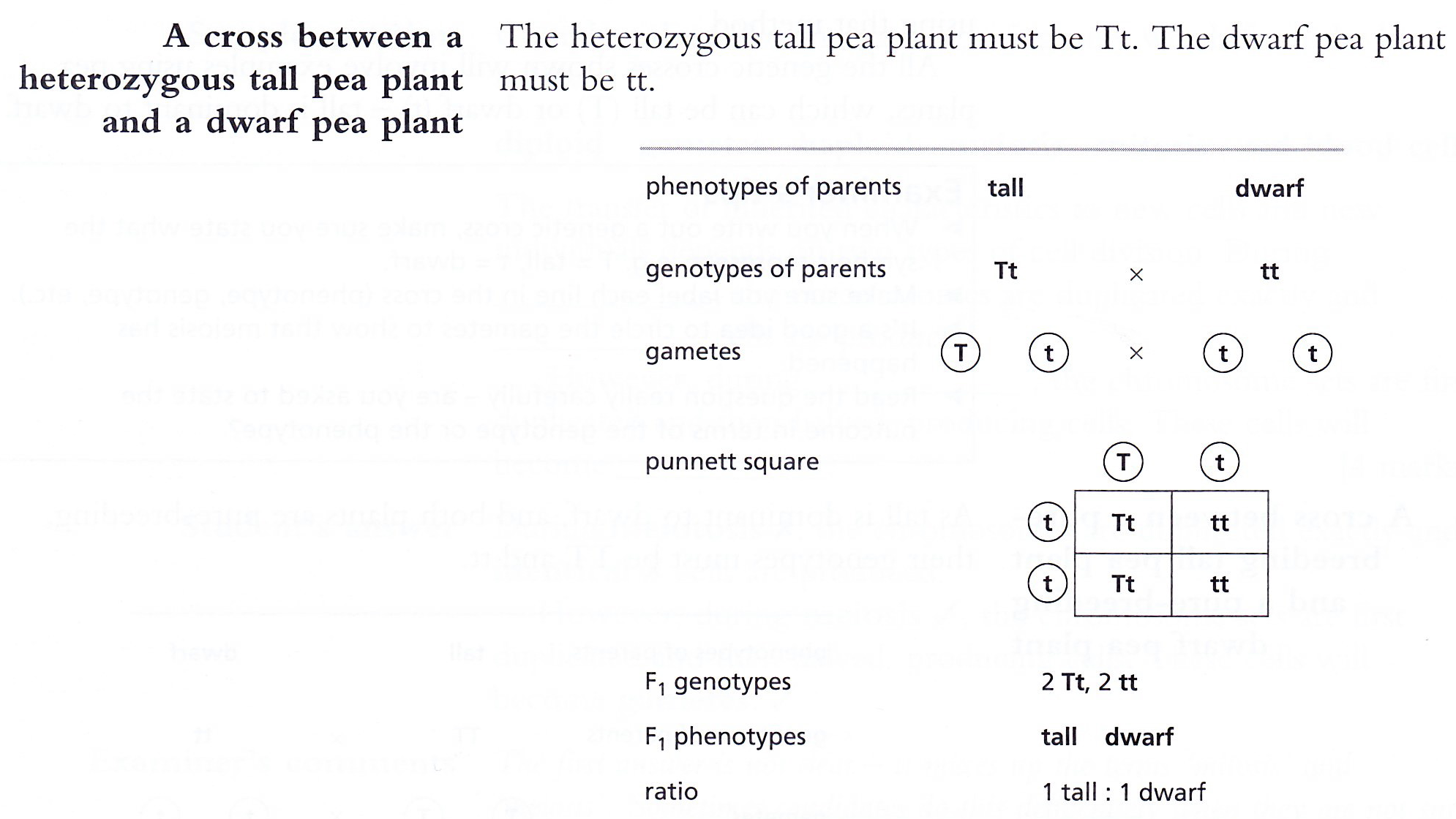
**Define *recessive*** - an allele that is only expressed when there is no dominant allele of the gene present (e.g. t or g)

**Interpret pedigree diagrams for the inheritance of a given characteristic**

**Use genetic diagrams to predict the results of monohybrid crosses and calculate phenotypic ratios, limited to 1:1 and 3:1 ratios.**

Monohybrid inheritance involves the study of how a single gene is passed on from parents to offspring.

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**Use Punnett squares in crosses which result in more than one genotype to work out and show the possible different genotypes**

As above

**Explain how to use a test cross to identify an unknown genotype**

**Explain co-dominance by reference to the inheritance of ABO blood groups – phenotypes being A, B, AB and O blood groups and alleles being IA, IB and IO**

**Define a sex-linked characteristic** - a characteristic in which the gene responsible is located on a sex chromosome and that this makes it more common in one sex than in the other

**Describe colour blindness as an example of sex linkage**

**Use genetic diagrams to predict the results of monohybrid crosses involving co-dominance or sex linkage and calculate phenotypic ratios**