Example Question:

Two true breed pea plants were crossed, one was tall and the other was dwarf. The F1 generation had all Tall plants.

Show the monohybrid cross of the two plants.

Solution:

Step 1: Underline the key words.

Step 2: Determine which trait is dominant and which is recessive.

Because the F1 generation is all Tall plants, the tall trait is dominant.

Step 3: Now that we know which trait is dominant we can determine the genotype of the parents.

Lets assign the traits a letter.

Tall - T (since it is dominant)

Dwarf - t (since it is recessive)

Since the parents are pure breed it has to be homozygous.

Therefore:

Phenotype:	pure breed tall	X	pure breed Dwarf
Genotype:	TT	X	tt

Note: TT is Homozygous dominant and tt is homozygous recessive.

Step 4: Now you separate the alleles to get the gametes.

TT will give T gamete.

tt will give t gamete.

Step 5: Now make a punnett square (Monohybrid Cross).