

General Principle 4

In Dachshund dogs, the genes for hair texture and hair length are located on different chromosomes.

The allele for wire hair (**A**) is dominant to the allele for smooth hair (**a**).

The allele for short hair (**B**) is dominant to the allele for long hair (**b**).

Wire hair is **always** short so dogs with allele **A** are **always** short haired.

Two Dachshunds with the genotype **AaBb** were crossed.

State the phenotype of the parents in this cross.

1

Marking Instructions

Question	Acceptable Answer	Mark	Unacceptable Answer	Negates
	Wire, short (hair) OR Short, wire(hair)	1	Any genotypes	Any additional incorrect phenotype

Candidate responses

Candidate Response 1

State the phenotype of the parents in this cross.

xx^bxy

Wire short hair

1

Candidate response 1 gives the correct answer (wire, short hair) and, in addition, has given some further genotype information. This additional information would, on its own, be an incorrect response but, as indicated in the marking instructions, does not negate. General principle 4 states that in this circumstance, the first answer should be taken. Therefore the additional information in this case may be ignored.

Mark awarded

Candidate Response 2

State the phenotype of the parents in this cross.

wire hair, short hair x smooth, long hair. 1

Candidate response 2 gives the correct answer (wire hair, short hair) but, in addition, has given a second phenotype that is incorrect. As shown in the marking instructions, this second phenotype negates the first correct phenotype.

Mark NOT awarded