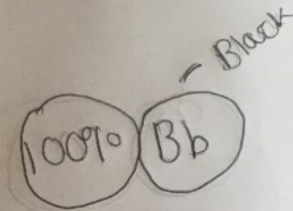


- 8* Dalmatian dogs usually have black spots. However a few of them have brown spots. The colour of the spots is controlled by two alleles, B and b. A male dog of genotype BB mates with a female bb.

Explain why none of the puppies would be expected to have brown spots. Use a Punnett square in your explanation.

Millie Crapper

	B	B
b	Bb	Bb
b	Bb	Bb



All of the genes turned out to be Bb in the Punnett Square, that I have created. Because the genotype is Bb this means all the puppies will be black, because it carries a dominant B gene and then overlaps the recessive b gene. None of the puppies will be brown because all of the genotypes in the punnet square is Bb.

The genotype for a puppy to be brown would be bb. If the punnet square was bb and Bb this would mean the puppies would be 50% of the puppies being brown and 50% of the puppies being black.

(6)

(Total for Question 8 = 6 marks)

TOTAL FOR TEST = 35 MARKS