TERM 1 2024 -

S.4 HOLIDAY WORK

BIOLOGY

A mating between a long tailed dog and long-tailed bitch produced only long tailed puppies. A second mating between the long tailed dog and short tailed bitch produced 3 long tailed and 3 short tailed puppies.

Task

- a) What is the genetic constitution of the long-tailed dog?
- b) Using genetic diagrams, show the offspring of the second mating.
- c) How could one identify if the long tailed puppies of the second mating were homozygous or heterozygous?