1   The chromosomes for determining the gender or sex of a person are labelled **X** and **Y**.

1 (a) (i)   Show how gender of a child is determined by the chromosomes inherited from the parents.

Use a diagram to help you.

Father shown as X Y [1 mark]

Mother shown as X X [1 mark]

Four possible combinations of chromosomes   X Y   X Y   X X   X X   [1 mark]

Genders written, X Y = boy, X X = girl [1 mark]

You can use a Punnet square or another method to show the inheritance.

(4 marks)

1 (a) (ii)   What are the chances of getting a baby boy?

1/2 / 2/4 / 0.5 / 50% / 50:50 / 1:1 / even or equal chance [1 mark]

(1 mark)

1 (a) (iii)   A couple have three boys. What are the chances of the next child being a boy.

Circle the correct response.

The same   Higher   Lower   Depends on which egg is fertilised.

(1 mark)

(Total 6 marks)