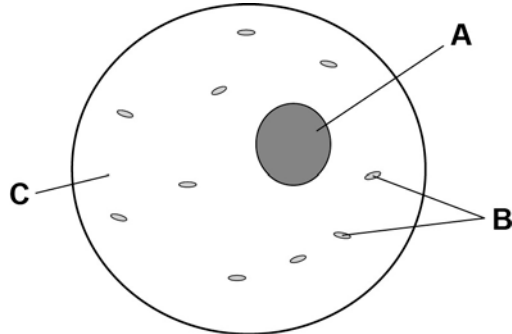


0 1

Figure 1 shows a human body cell.

Figure 1



0 1 . 1

Which part in **Figure 1** contains chromosomes?

[1 mark]

Tick **one** box.
 A  B  C

0 1 . 2

Humans have pairs of chromosomes in their body cells.

Draw **one** line from each type of cell to the number of chromosomes it contains.

[2 marks]

Type of cell	Number of chromosomes
	10
Human body cell	23
	46
Sperm cell	60
	92

---

Humans have two different sex chromosomes, **X** and **Y**.

**Figure 2** shows the inheritance of sex in humans.

**Figure 2**

		<b>Mother</b>	
		X	X
<b>Father</b>	X	XX	XX
	Y	XY	XY

**0 1** . **3** Circle a part of **Figure 2** that shows an egg cell.

[1 mark]

**0 1** . **4** Give the genotype of male offspring.

[1 mark]

---

**0 1** . **5** A man and a woman have two sons. The woman is pregnant with a third child.

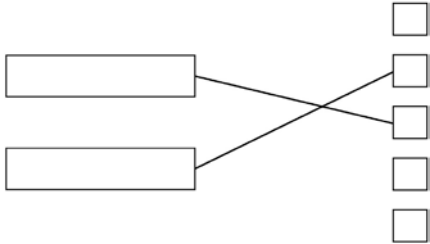
What is the chance that this child will also be a boy?

[1 mark]

Tick **one** box.

- 0%
- 25%
- 50%
- 100%

**Question 1**

Question	Answers	Extra information	Mark	AO / Spec. Ref.
01.1	A		1	AO1/1 4.6.1.4
01.2			1  1	AO1/1 4.6.1.8  AO1/1 4.6.1.8
01.3	one x circled under mother	accept if clearly indicated choice even if not circled	1	AO1/1 4.6.1.8
01.4	XY	allow YX	1	AO1/1 4.6.1.8
01.5	50 (%)		1	AO2/1 4.6.1.8
<b>Total</b>			<b>6</b>	