

**Answer ALL questions.**

**Some questions must be answered with a cross ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.**

**1** Meiosis and mitosis are both types of nuclear division that take place in eukaryotic organisms.

(a) Put a cross ☒ in the box next to the correct word or words to complete each of the following statements.

(i) DNA synthesis takes place before

(1)

- A** both meiosis and mitosis
- B** meiosis only
- C** mitosis only
- D** neither meiosis nor mitosis

(ii) Crossing over takes place during prophase I in

(1)

- A** both meiosis and mitosis
- B** meiosis only
- C** mitosis only
- D** neither meiosis nor mitosis

(b) Put a cross ☒ in the box next to the row in the table that correctly describes the result of meiosis and the result of mitosis.

(1)

	<b>Meiosis</b>	<b>Mitosis</b>
<input type="checkbox"/> <b>A</b>	two daughter cells with one copy of each chromosome	four daughter cells with two copies of each chromosome
<input type="checkbox"/> <b>B</b>	two daughter cells with one copy of each chromosome	four daughter cells with one copy of each chromosome
<input type="checkbox"/> <b>C</b>	four daughter cells with one copy of each chromosome	two daughter cells with two copies of each chromosome
<input type="checkbox"/> <b>D</b>	four daughter cells with one copy of each chromosome	two daughter cells with one copy of each chromosome