

AQA - Cell division – GCSE Biology1. **May/2020/Paper_1F/No.2****0 2**

This question is about cell division.

0 2 . 1

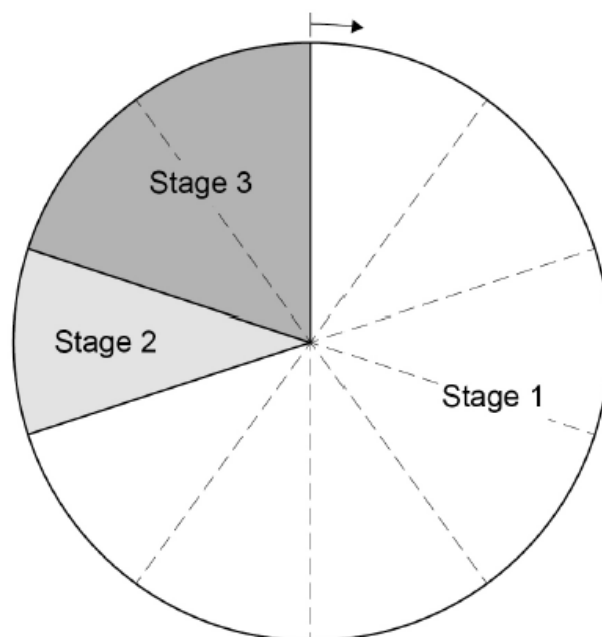
Which process makes two identical new body cells for growth and repair?

[1 mark]Tick (✓) **one** box.

Differentiation

Fertilisation

Mitosis

Figure 5 shows the three stages of a cell cycle.**Figure 5**

0 2 . 2 Draw **one** line from each stage of the cell cycle to what happens during that stage. **[2 marks]**

Stage of cell cycle	What happens during that stage
Stage 1	One set of chromosomes is pulled to each end of the cell
Stage 2	The cytoplasm and cell membrane divide to form two new cells
Stage 3	The cell grows and the chromosomes replicate

0 2 . 3 What percentage of the total time for the cell cycle is taken by stage 1? **[2 marks]**

Percentage = _____ %

0 2 . 4 A cell divides to form two new cells every 24 hours.

How many days will it take for the original cell to divide into 8 cells?

[1 mark]

Tick (✓) **one** box.

1 3 6 8

0 2 . 5 The chromosomes contain the genetic material.

Name the chemical which the genetic material is made from.

[1 mark]

0 2 . 6 The genetic material is made of many small sections.

Each section codes for a specific protein.

What is one section of genetic material on a chromosome called?

[1 mark]

Tick (✓) **one** box.

A gamete

A gene

A nucleus

0 2 . 7 Stem cells are cells which have **not** yet been specialised to carry out a particular job.

Bone marrow cells are one example of stem cells.

Explain how a transplant of bone marrow cells can help to treat medical conditions.

[2 marks]
