

Paper Reference(s) 9BN0/02

Pearson Edexcel Level 3 GCE

Biology A (Salters Nuffield)

Advanced

PAPER 2: Energy, Exercise and Coordination

Friday 13 June 2025 – Morning

Time: 2 hours

Diagram Booklet

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INSTRUCTIONS

There may be spare copies of some diagrams.

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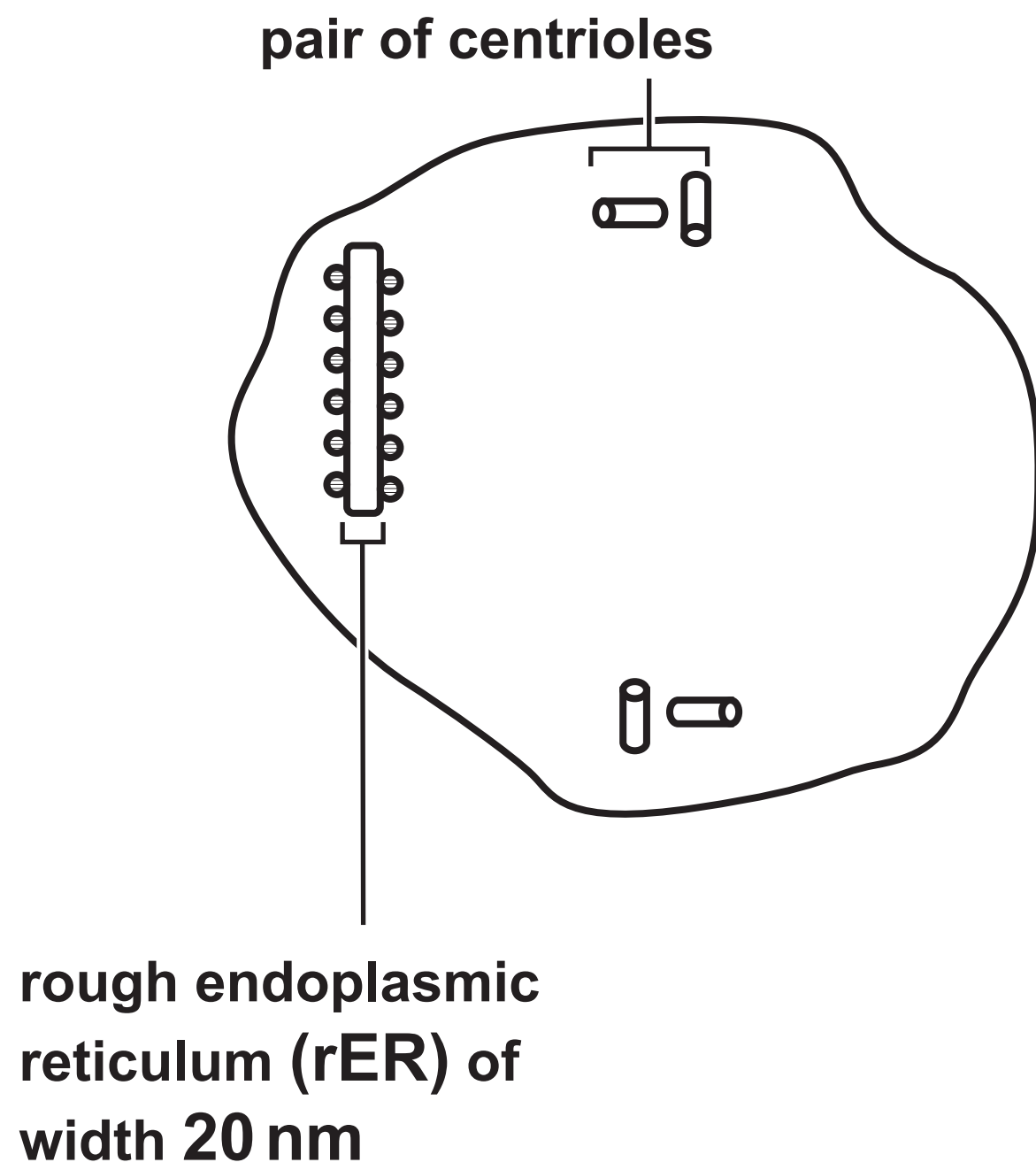
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20 Question 10(b) – outline

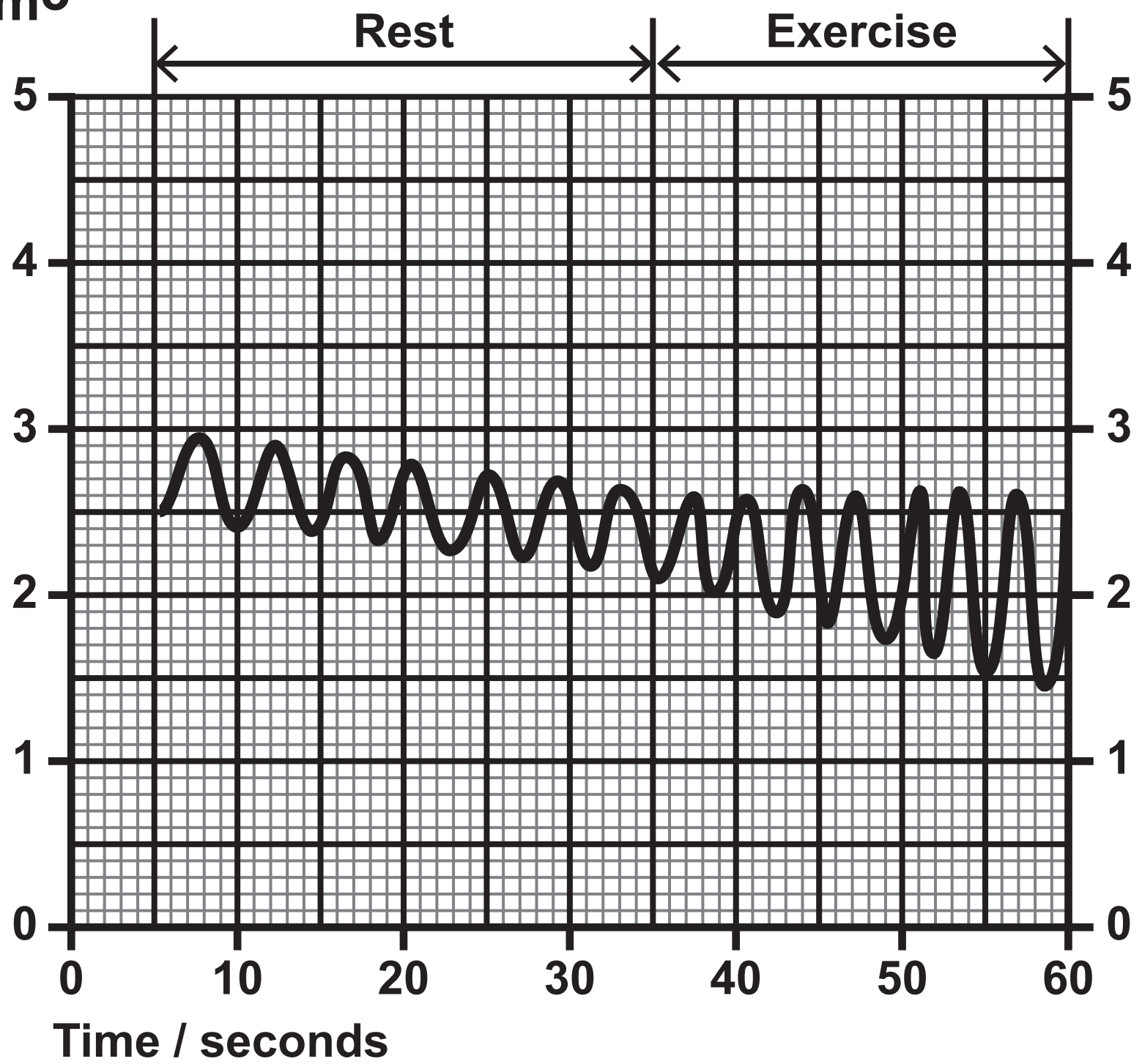
Spare Copies

21 Question 7(a) – spare copy

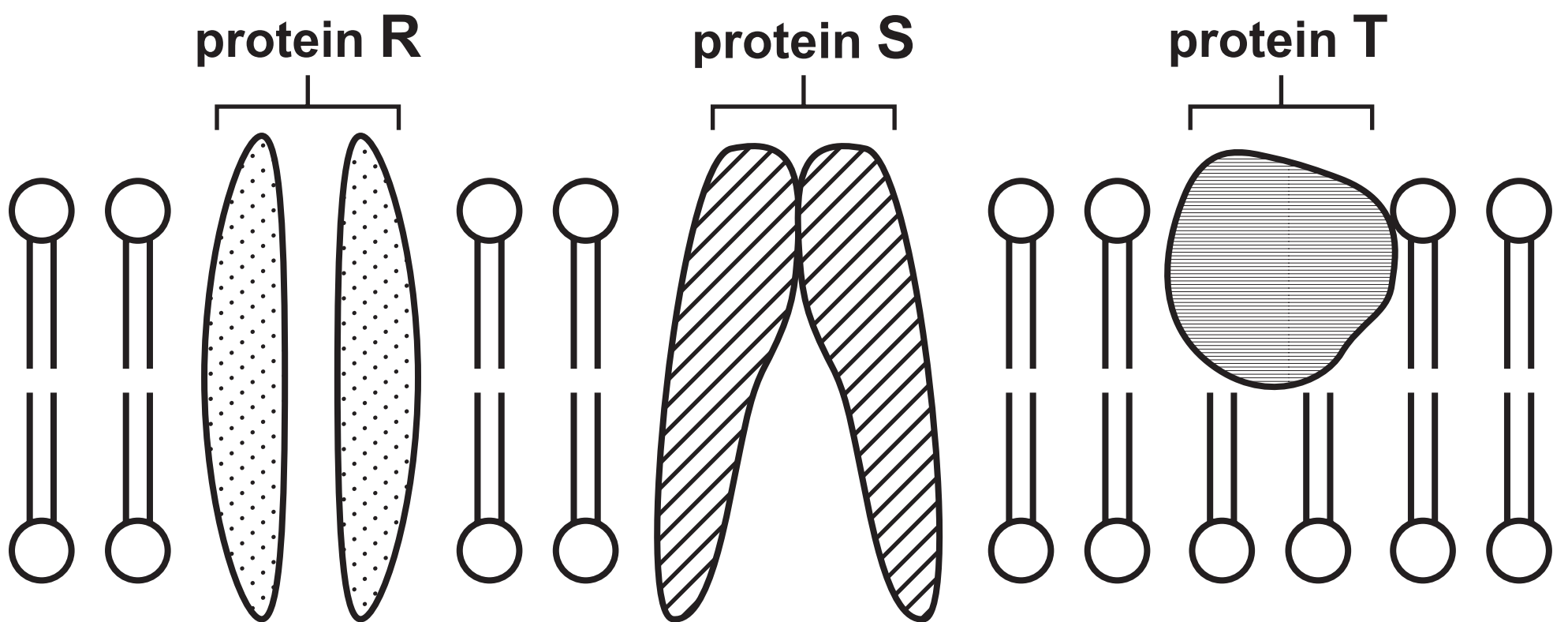
Question 1(a)

Question 2(b)

Volume of air
/ dm³

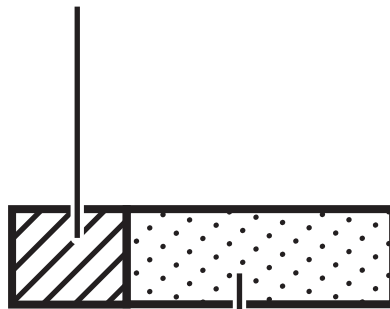


Question 3



Question 3(a)

hydrophilic component



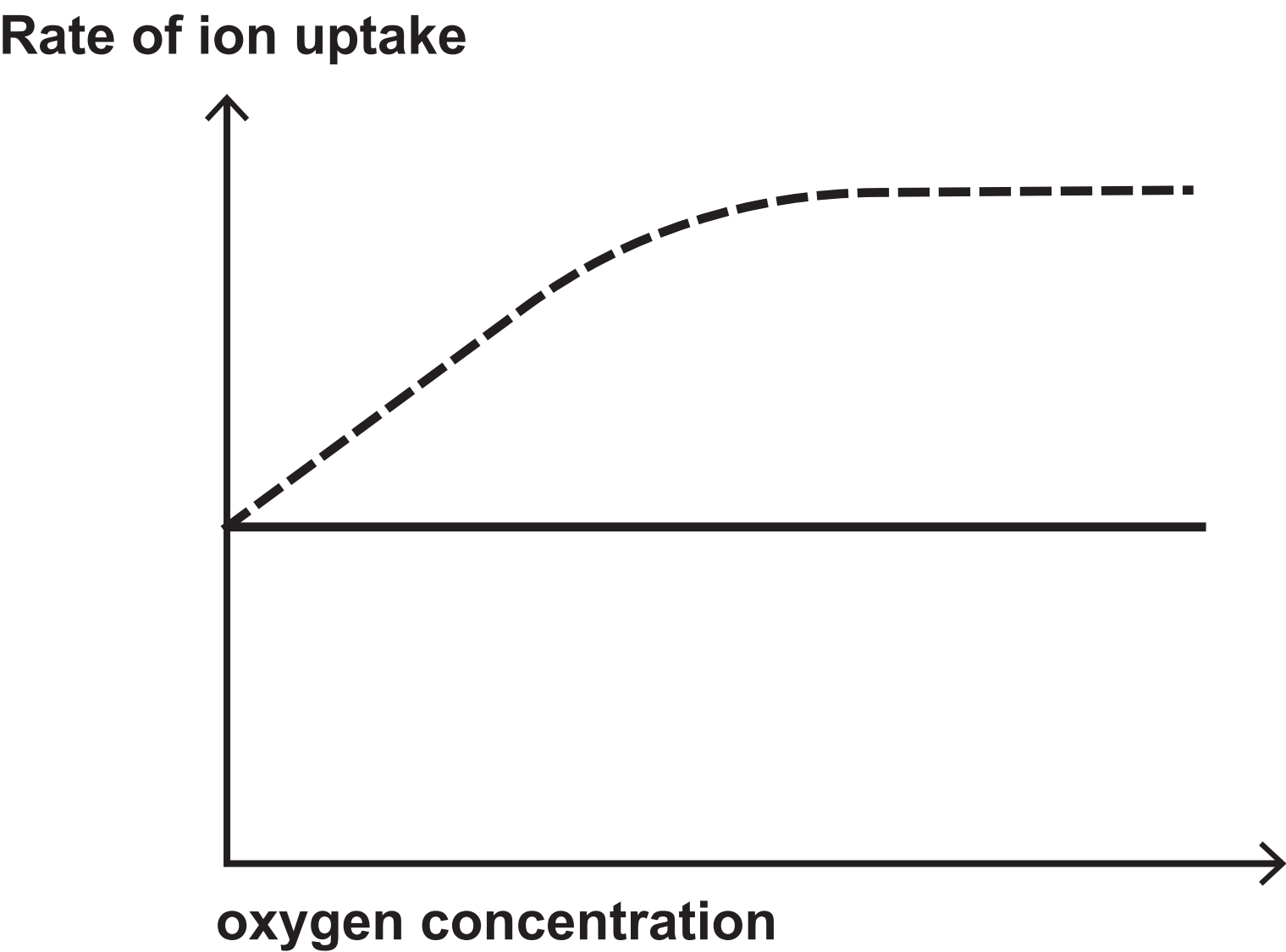
hydrophobic component

Question 3(b)

KEY

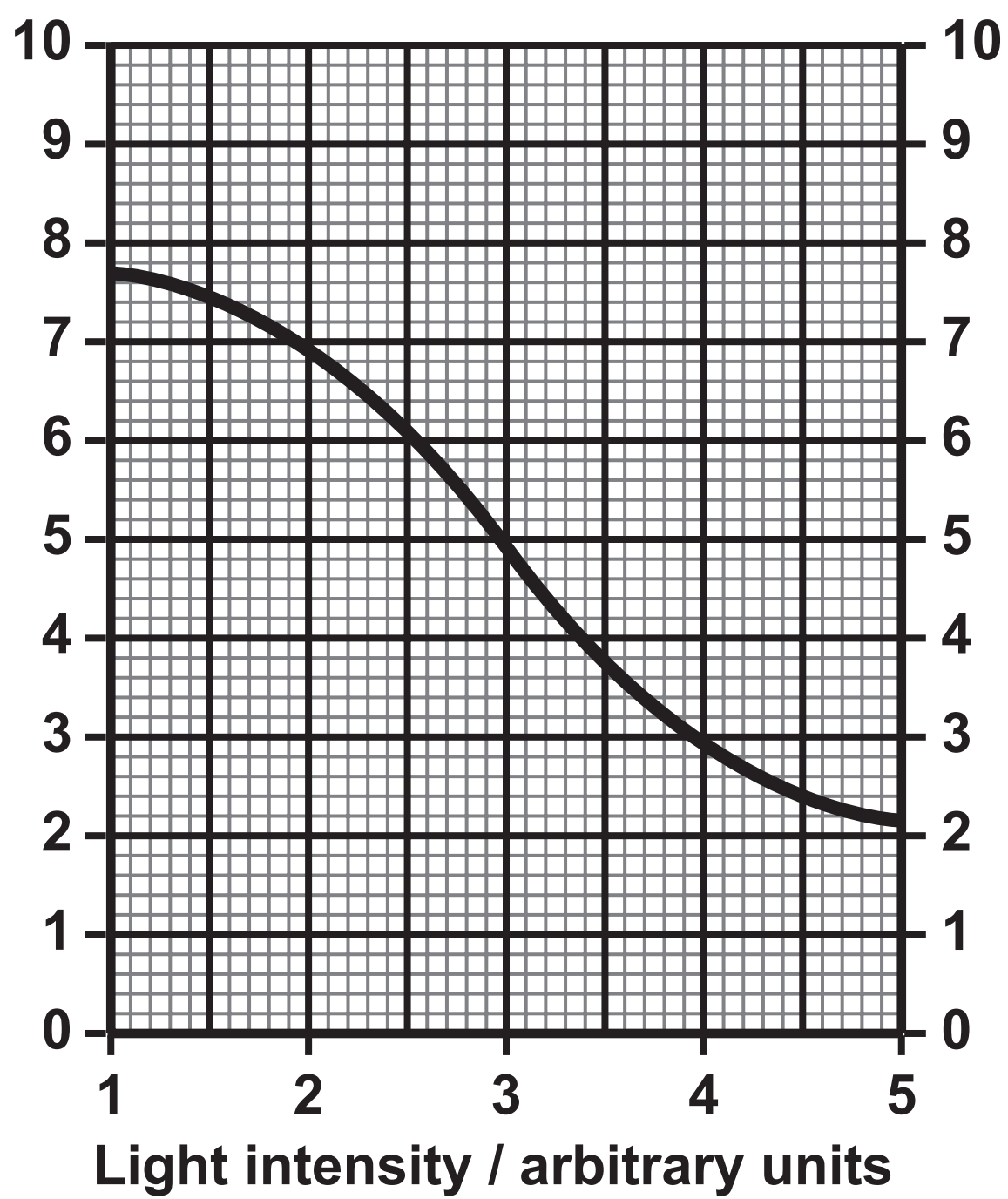
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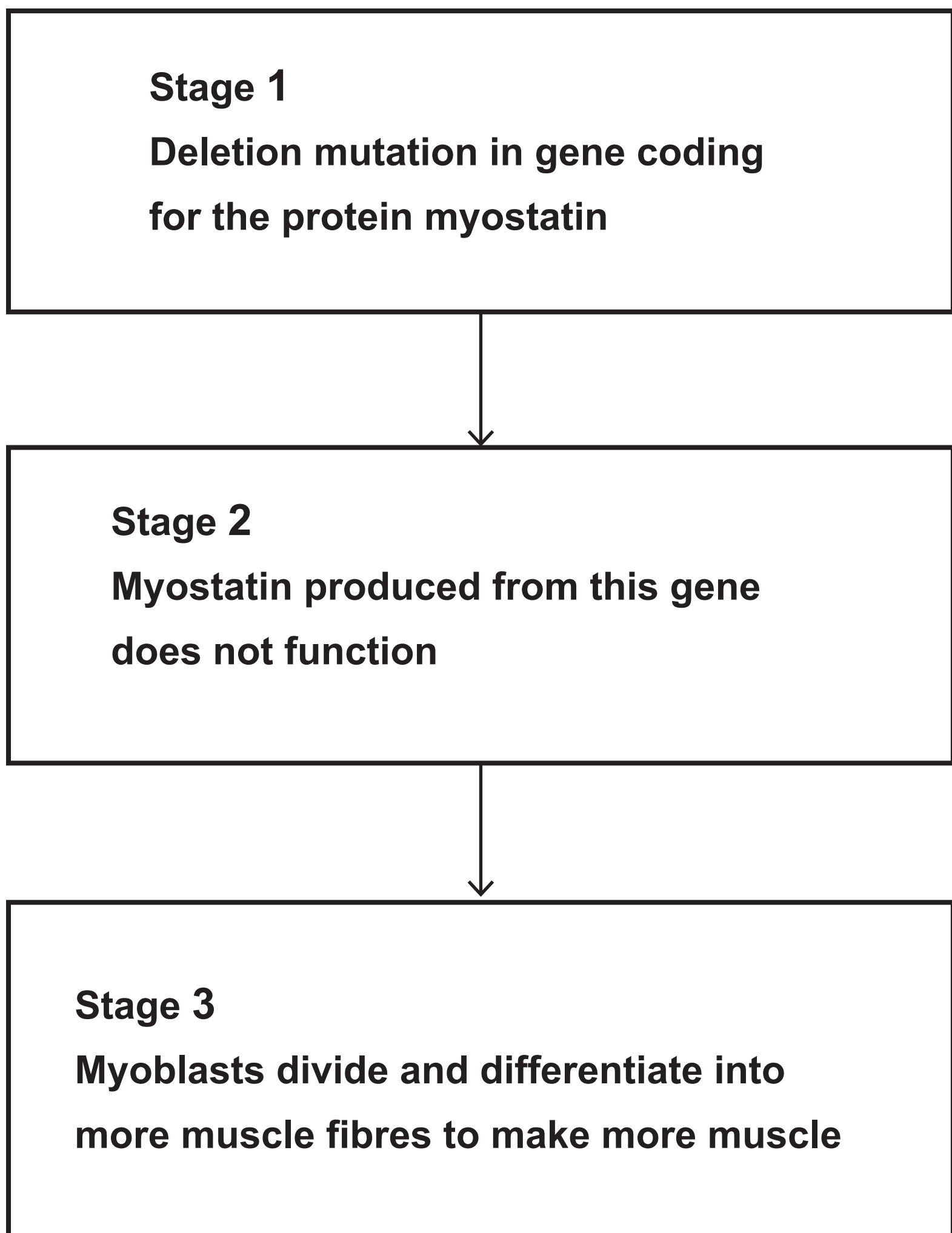
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Question 4(c)

Pupil diameter / mm



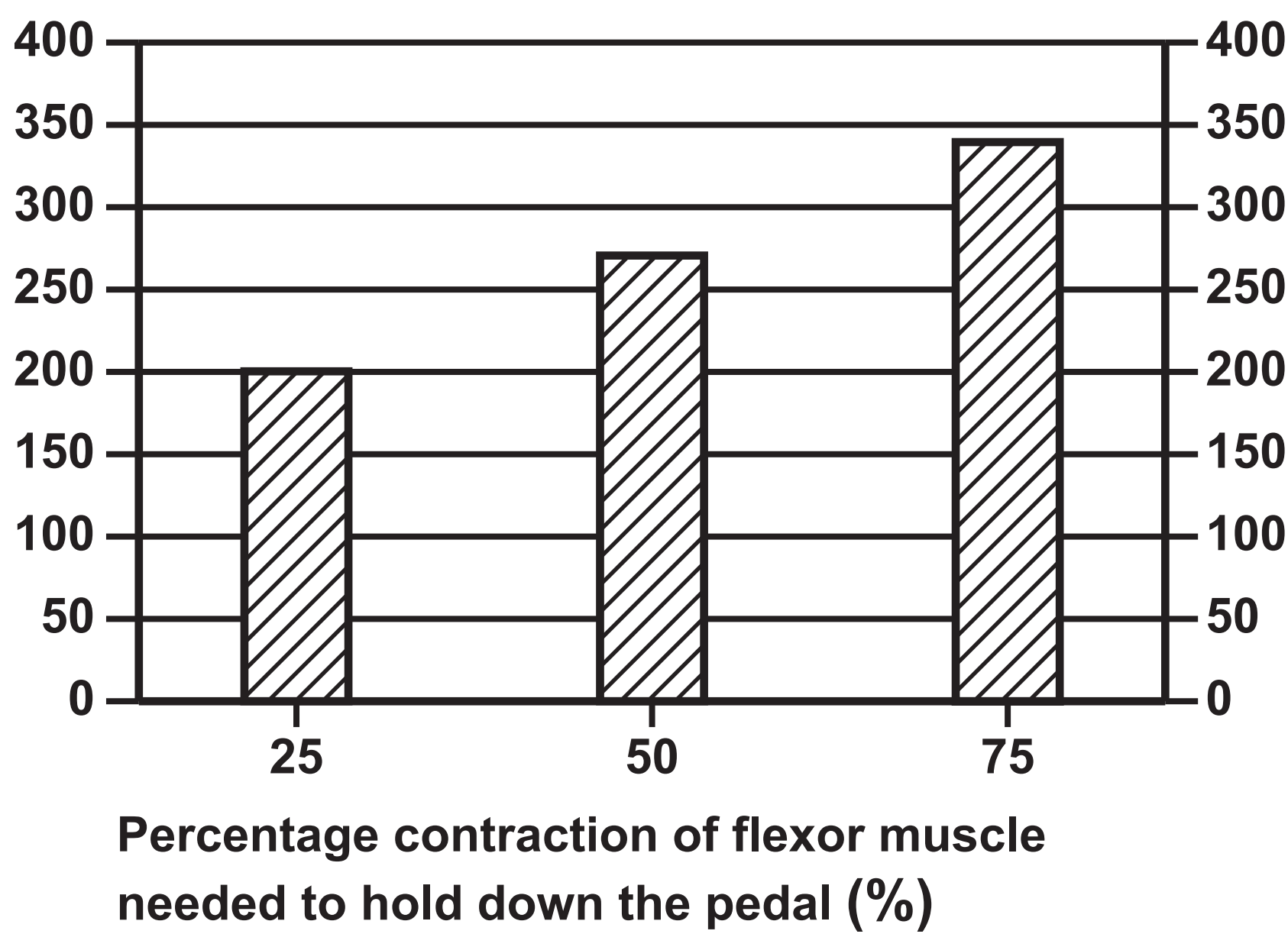
Question 5

T	G	T	G	A	T	G	A	A	C	A	C	T	C	C	A	C	A	G	A	A
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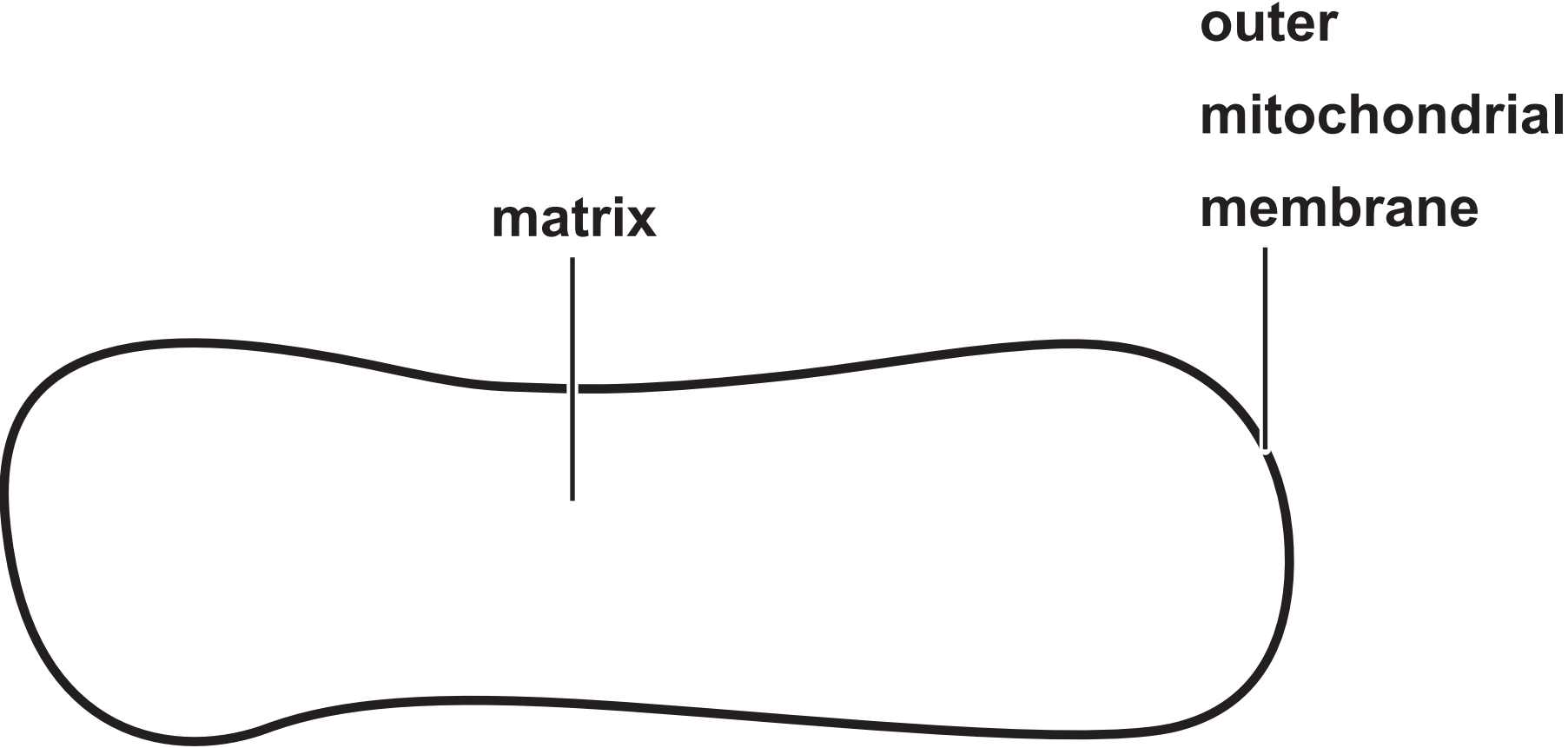
T	G	T	G	A	T	G	A	A	C	A	C	T	C	C	A	C	A	G	A	A
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Question 6

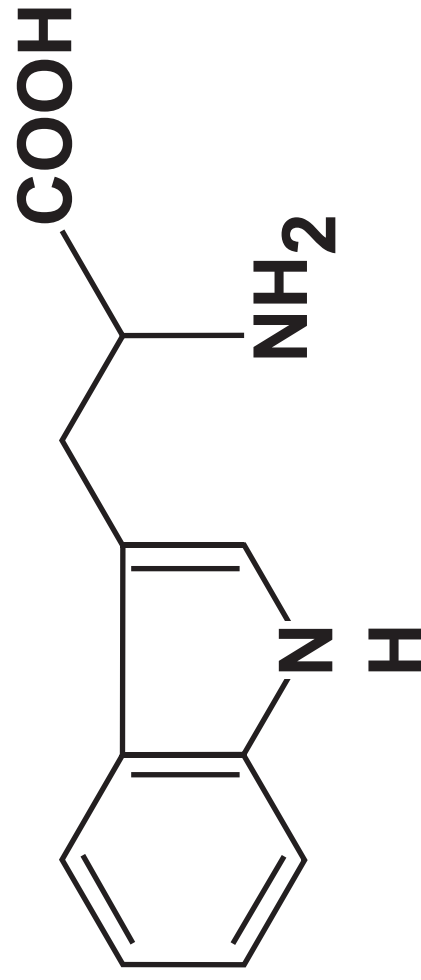
Mean response time / ms



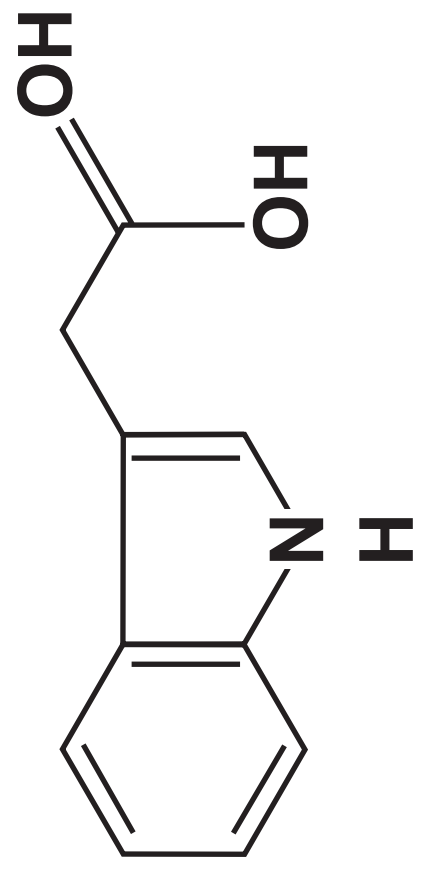
Question 7(a)



Molecule Q



Auxin (IAA)



Question 8(b)(ii)

Neighbouring plants absorb sunlight leading to a reduction in the level of active phytochrome in *Arabidopsis* plants



This allows transcription factors to bind to DNA

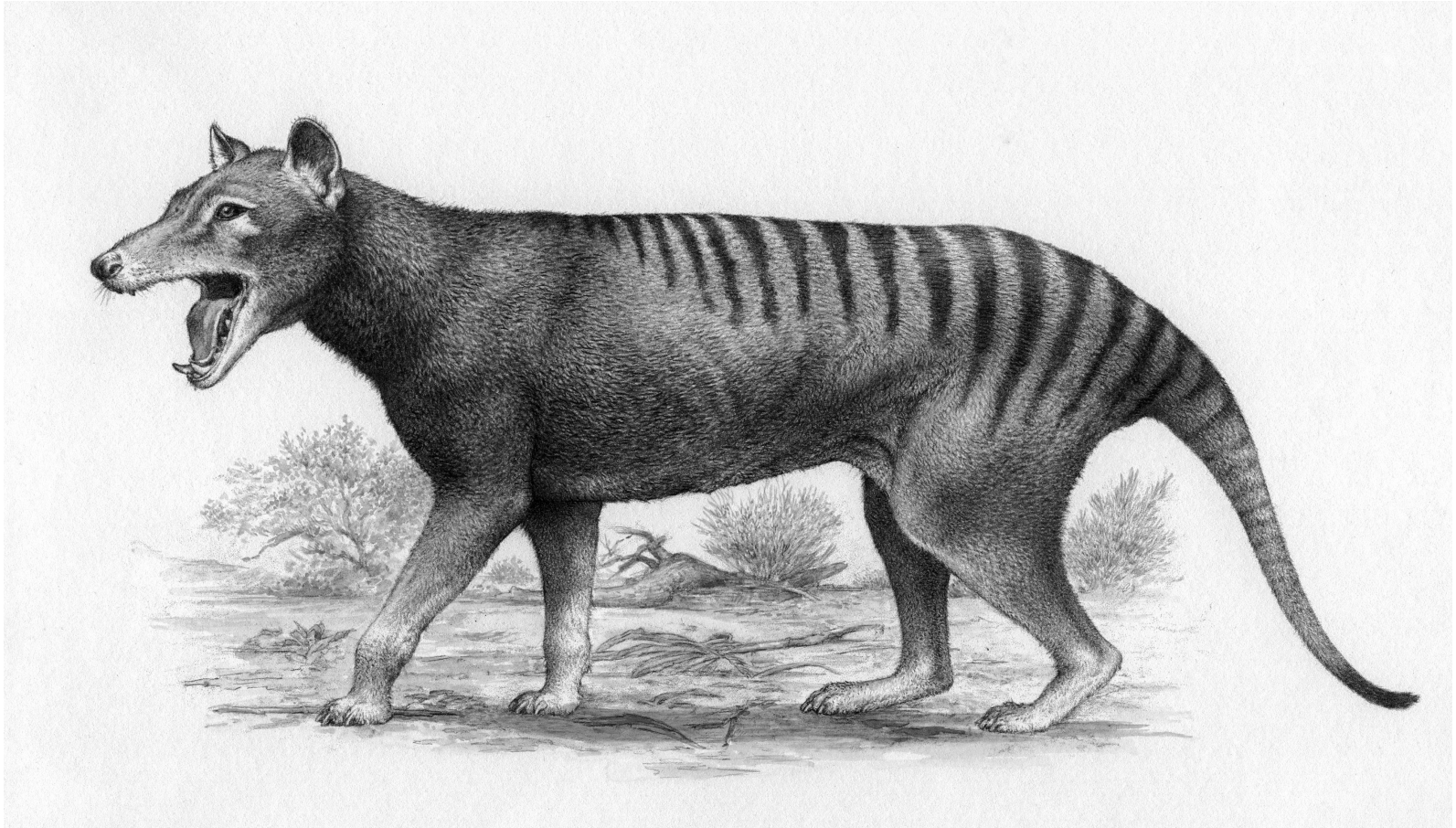


This results in the production of TAA and YUC enzymes

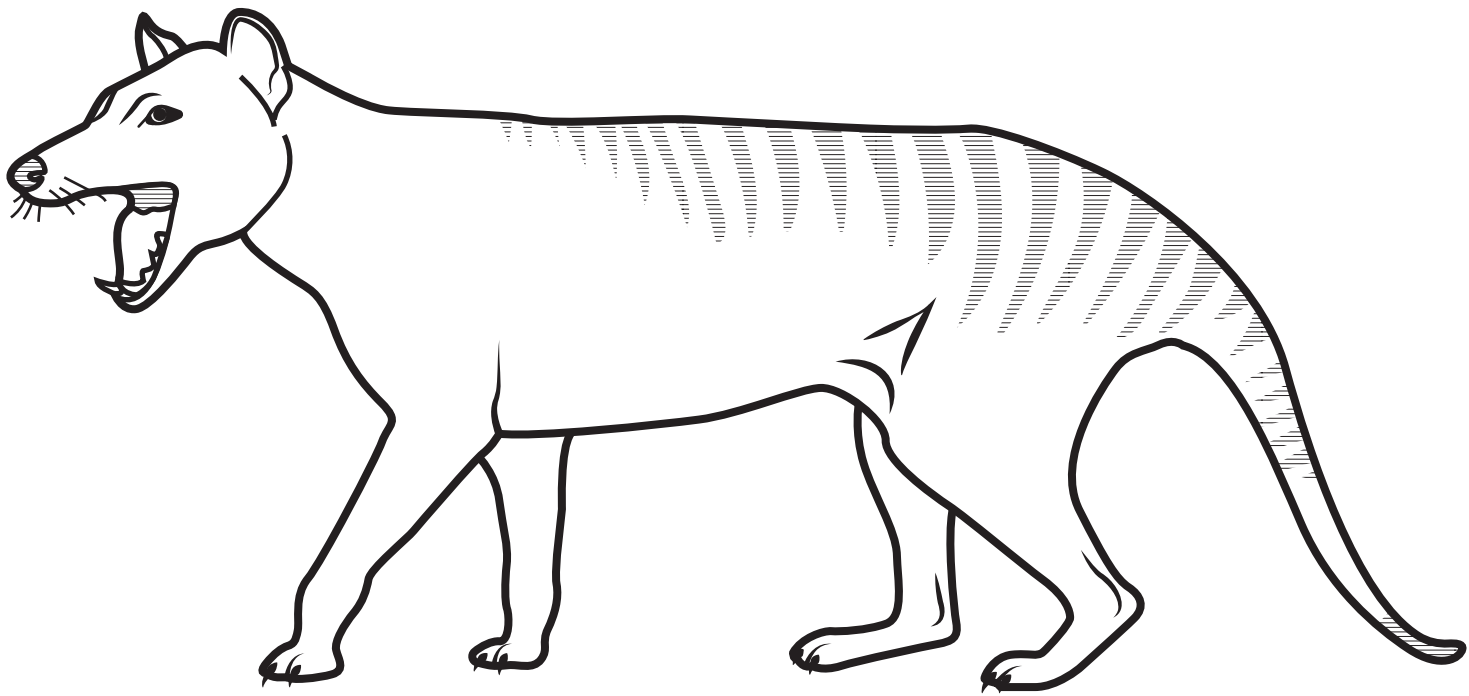


***Arabidopsis* shoots grow taller**

Question 9 – picture



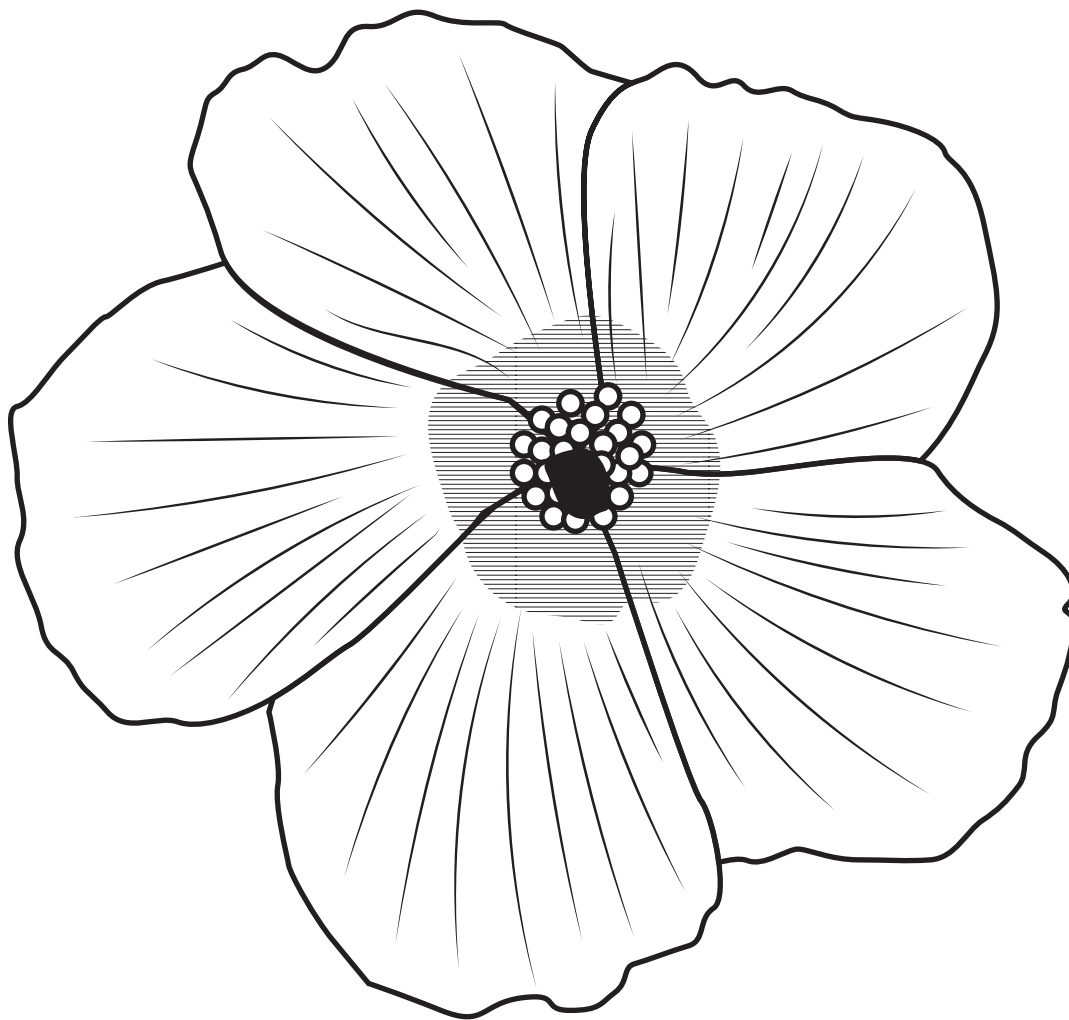
Question 9 – outline

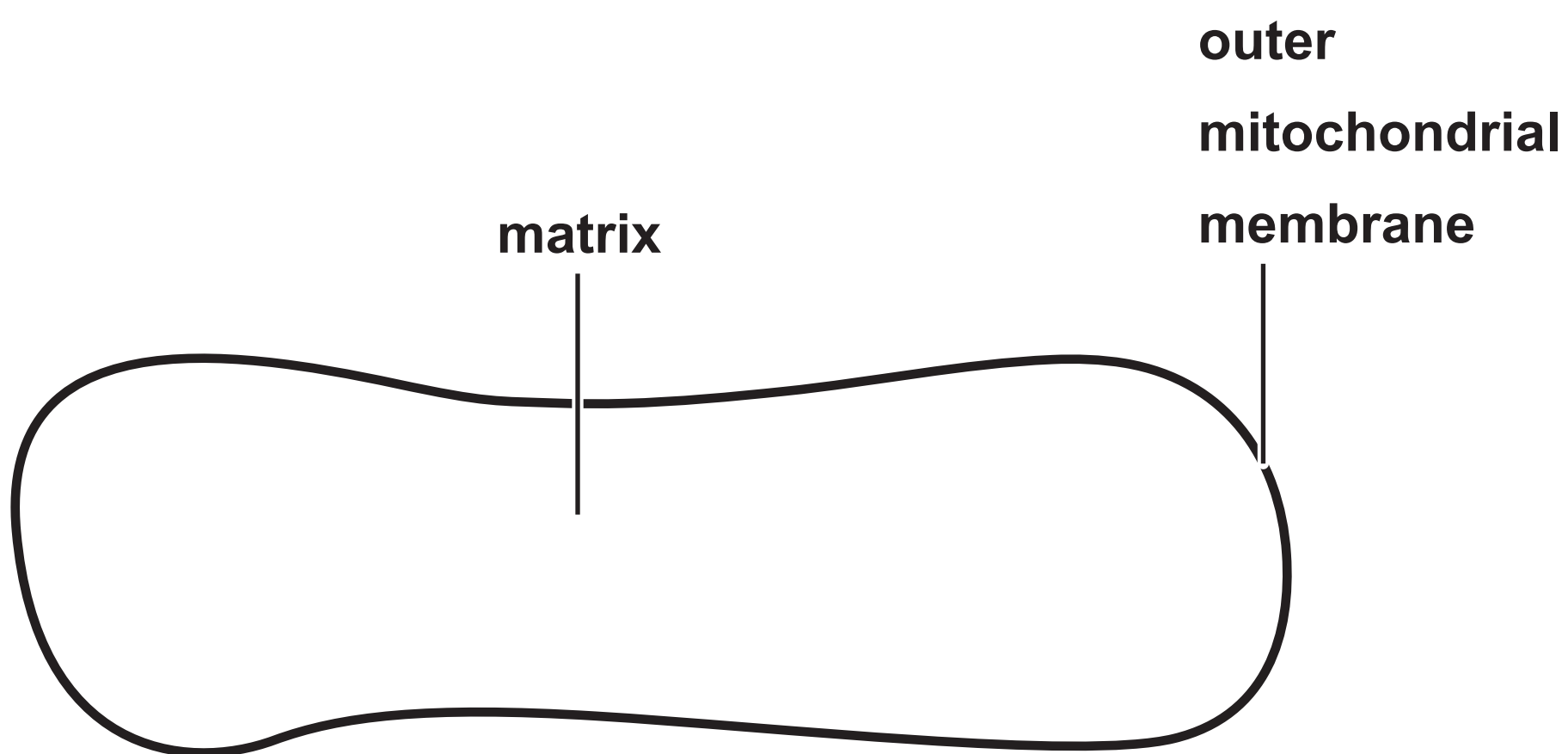


Question 10(b) – picture

Roselle (*Hibiscus sabdariffa*)



Question 10(b) – outline**Roselle (*Hibiscus sabdariffa*)**

Question 7(a) – spare copy

Source information

Question 9

Source: © John Sibbick/Science Photo Library

Question 10(b)

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